State of California

THE RESOURCES AGENCY

Department of Water Resources

BULLETIN No. 130-64

HYDROLOGIC DATA: 1964

Volume V: SOUTHERN CALIFORNIA

AUGUST 1966

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
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ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

Appendix A - CLIMATE

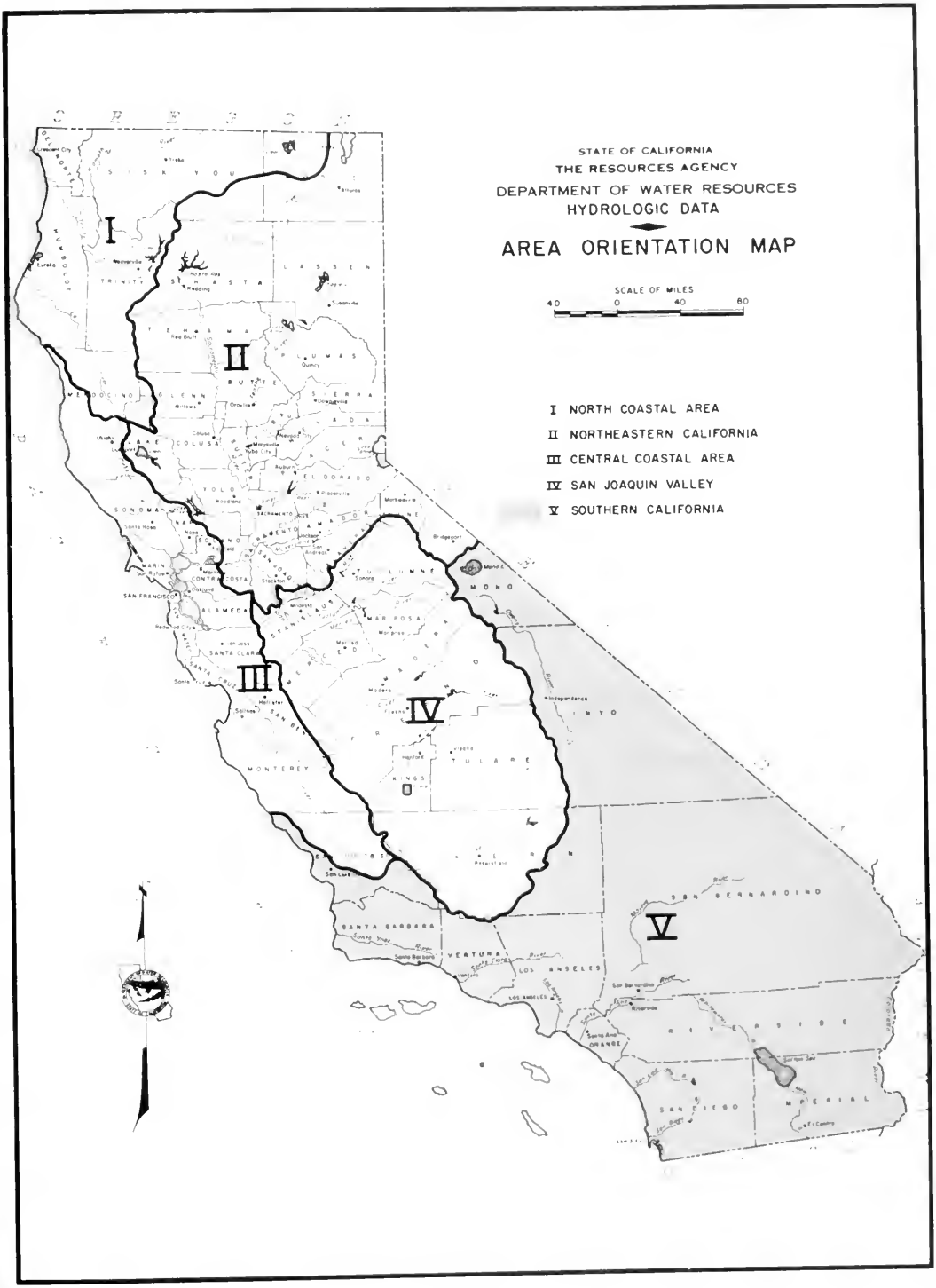
Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY

FIGURE 1


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA
AREA ORIENTATION MAP
SCALE OF MILES
40 0 40 80
I NORTH COASTAL AREA
II NORTHEASTERN CALIFORNIA
III CENTRAL COASTAL AREA
IV SAN JOAQUIN VALLEY
V SOUTHERN CALIFORNIA
I
II
III
IV
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OREGON
NEVADA
ARIZONA
MEXICO
SISKIYOU
TRINITY
SHASTA
LASSEN
HUMBOLDT
MENDOCINO
TEHAMA
PLUMAS
BUTTE
SIERRA
GLENN
COLUSA
NEVADA
PLACER
EL DORADO
YOLO
SACRAMENTO
AMADOR
SONOMA
NAPA
LAKE
SAN JOAQUIN
CALAVERAS
TUOLUMNE
MARIN
CONTRA COSTA
SAN FRANCISCO
ALAMEDA
MARIPOSA
MONO
SANTA CLARA
SAN BENITO
MADERA
FRESNO
INYO
MONTEREY
KINGS
TULARE
SAN LUIS OBISPO
SAN BERNARDINO
SANTA BARBARA
VENTURA
LOS ANGELES
RIVERSIDE
ORANGE
SAN DIEGO
IMPERIAL

METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT	
Inch (in)	2.54	Centimeters
Foot (ft)	0.3048	Meter
Mile (mi)	1.609	Kilometers
Acre	0.405	Hectare
Square mile (sq. mi.)	2.590	Square kilometer
U. S. gallon (gal)	3.785	Liters
Acre foot (acre-ft)	1,233.5	Cubic meters
U. S. gallon per minute (gpm)	0.0631	Liters per second
Cubic feet per second (cfs)	1.7	Cubic meters per minute

FOREWORD

The Bulletin No. 130 series of reports is an integral part of the basic data program of the Department. This program has been designed to supplement the activities of other agencies by collecting data not available elsewhere and by publishing hydrologic data in a single series of publications.

This series of reports contains data on surface water, ground water, and climate previously published annually in Bulletins Nos. 23, 39, 65, 66, and 67. The series will be published annually in five volumes, each volume to report hydrologic data for one of five specific reporting areas of the State.

The collection and publication of data in this report is authorized by Sections 225, 226, 229, 230, 232, 345, 12609, and 12616 of the Water Code of the State of California

William E. Warne, Director
Department of Water Resources
The Resources Agency
State of California

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(Appendixes A and B are bound herein with the text of Volume V of Bulletin No. 130-64. Appendix C is bound separately under two covers. Appendixes D and E are bound separately under a fourth and fifth cover.)

FIGURES

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PLATES
(Bound at back of book)

ACKNOWLEDGMENT

The Department of Water Resources gratefully acknowledges the assistance and contributions of the many public agencies, private organizations, and individuals whose cooperation has greatly facilitated the preparation of this bulletin. In this regard, special mention is made of the following:

California Disaster Office
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City of Long Beach, Department of Public Health
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City of San Diego
Coachella Valley County Water District
Imperial Irrigation District
Los Angeles County Flood Control District
Orange County Flood Control District
Riverside County Flood Control and Water Conservation District
San Bernardino County Flood Control District
San Bernardino Valley Water Conservation District
San Luis Obispo County Flood Control and Water Conservation District
The Metropolitan Water District of Southern California
United States Army Corps of Engineers
United States Geological Survey
United States Weather Bureau
United States Soil Conservation Service
United States Public Health Service
Ventura County Flood Control District

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

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Reviewed and coordinated by Statewide Planning Office, Data Coordination Branch

ABSTRACT

Report contains data on precipitation, runoff, reservoir storage, and water imported to Southern California. Foldout plates show drainage province boundaries, locations of hydrologic areas within the drainage province, and lines of equal seasonal and mean precipitation.

HYDROLOGIC DATA: 1964, SOUTHERN CALIFORNIA

To meet the ever-increasing urban and agricultural requirements of Southern California demands the orderly development and protection of the area's water resources. These resources must, therefore, be measured and monitored regularly, and the results made public. The objective of the hydrologic data program of the Department of Water Resources is to provide information to meet this need.

Scope of Report

Hydrologic data are assembled in this bulletin to provide a useful source of information for all interested in development of the water resources of Southern California. Presented are data on precipitation, streamflow, reservoir storage, imported water, ground water, water quality, and artificial recharge of ground water basins.

Approximately 500 precipitation stations were selected as a source of information which would be representative of hydrologic conditions in the southern portion of the State. Preference was given to stations with the longest records. Precipitation data are collected from local agencies and records of the United States Weather Bureau. This report is the only publication of the data by hydrologic area, suitable for expeditious use in water resources analyses. Subsequent bulletins in this series are planned to also include evaporation, wind, temperature, and agroclimatic data with the precipitation data.

The records of daily mean discharge in this report are for stations in the vicinity of the State Water Project that were constructed and maintained by the Department of Water Resources. In addition, records

of seasonal runoff at 18 selected stations are presented to illustrate surface water conditions throughout Southern California. Another source of streamflow records is the United States Geological Survey's annual publication, "Surface Water Records of California."

Data on storage in surface reservoirs and imported water are collected from the various local agencies and compiled to depict water supply reserves.

The major portion of the ground water measurements in Southern California is obtained from local water agencies, with the Department of Water Resources acting as the collector and central compiling agency for these records. This bulletin publishes data for about 7,500 wells, of which only about 400 wells are routinely measured semiannually by the Department. The Department also collects ground water level information during special investigations conducted from time to time in various places throughout Southern California. All these records are published in the Bulletin No. 130 series for the appropriate year.

Water quality data for 52 surface water sampling stations in the Southern District were collected. The stations are a part of the statewide surface water quality data program.

Ground water quality data were collected by the Department and cooperating agencies for wells in the continuing ground water quality data program and from wells sampled for other programs and investigations. This ground water quality monitoring program identifies problems requiring additional study that are caused by saline-water intrusion, improper liquid waste disposal practices, improper well construction and abandonment, or repeated water use and reuse.

Prior Reports

Since 1930, many bulletins covering various aspects of the hydrology of Southern California have been published by the Department of Water Resources and its predecessor, the Division of Water Resources of the Department of Public Works. These bulletins include data on water use, ground water levels, quality of water, value and cost of water for irrigation, water losses and evaporation data, ground water geology, and evaluation of overdraft on ground water basins in Southern California.

The Bulletin No. 39 series, entitled "Water Supply Conditions in Southern California", was first published in 1932 as a part of the investigation initiated by Chapter 832, Statutes of 1929. Since then, water levels at selected wells have been published annually in Bulletins Nos. 39-A through 39-W, and Bulletins Nos. 39-56 through 39-62. Bulletin No. 39-56, the first of the numbered series, followed Bulletin No. 39-W without interruption in the annual continuity of data.

Bulletins Nos. 65 and 66 for Southern California were commenced for the 1955-56 period, and these reports have continued through the publication of Bulletin No. 65-61, Part II, dated January 1964, and Bulletin No. 66-60, Part II, dated April 1964.

These bulletins have been consolidated into the Bulletin No. 130 series, which enhances the value of these bulletins and considerably reduces the amount of time involved in consolidating hydrologic data by users. Furthermore, the Bulletin No. 130 series is a part of a standardized and coordinated reporting procedure for the State of California, which increases the availability of hydrologic data and provides an annual summary of hydrologic conditions.

In addition, reports on water conditions are prepared by the Department of Water Resources on the first of each month from February through May and again in October as part of the Bulletin No. 120 series. These reports contain forecasts of the runoff for the ensuing April through July snowmelt period. The May 1 report contains a section on ground water conditions as of the date of the report.

Organization of Report

Volume V of the Bulletin No. 130 series contains hydrologic data for Southern California. Volume V, Bulletin No. 130-64, is published under five covers. The first book contains the text and Appendixes A ("Climate") and B ("Surface Water Flow").

The second and third books are respectively, Appendix C, "Ground Water Measurements", Parts 1 and 2. Part 1 presents hydrologic data for the Central Coastal and Los Angeles Drainage Provinces. Part 2 presents hydrologic data for the Lahontan, Colorado River Basin, Santa Ana, and San Diego Drainage Provinces.

The fourth book contains Appendix D, "Surface Water Quality", and the fifth book, Appendix E, "Ground Water Quality".

APPENDIX A

CLIMATE

Introduction

The overall view of climatic conditions in Southern California is presented in Table A-1, which shows the 1963-64 seasonal precipitation and percent of the 50-year mean at selected stations.

Precipitation characteristics at four long-term stations are shown on Figures A-1 through A-4. Values of the cumulative monthly precipitation for a 50-year mean period and for 1963-64 at these four stations are included in Table A-2.

Plate 1, which is bound at the back of this book, contains lines of equal seasonal precipitation during 1963-64 and the 50-year mean precipitation for Southern California.

Seasonal precipitation during 1963-64 at approximately 500 selected stations in Southern California is presented in Table A-3. Stations which were representative of hydrologic areas were selected to give an accurate picture of climatic conditions.

Measurement Techniques

The Department cooperates with the U. S. Weather Bureau and local agencies in the collection of precipitation data. However, this collection is dependent, for the most part, on the cooperation of local observers, who measure the amount of precipitation that falls during a storm or a known period of time, usually 24 hours. Measurements in the precipitation gage are made with a calibrated ruler or read from a recorder chart and are generally accurate to $\pm$0.01 inch.

For this report, these daily measurements were totaled from July 1963 to June 1964 and are presented in tables of seasonal precipitation in this appendix.

Coding

To facilitate processing of precipitation data, codes using numerals and letters designate hydrologic areas, agencies, and specific data. These codes are described in the following paragraphs.

Hydrologic Area Coding System

To provide uniform boundaries that are significant both geologically and hydrologically, the Department of Water Resources has developed an areal designation system. It relates areas that are interconnected hydrologically so the filing, separation, and recovery of data can be handled by machine. A further advantage of this coding system is that it can be used throughout the State. This system, as developed for Southern California, is described in an office report entitled "Names and Areal Code Numbers of Hydrologic Areas in the Southern District", dated April 1964.

The areal designation system for the Southern District covers a series of major drainage provinces which are further subdivided into hydrologic units, hydrologic subunits, and hydrologic subareas. Plates 2 through 7 show the locations and areal code numbers of the hydrologic subdivisions in each drainage province.

Precipitation Station Numbering System

In addition to the coding procedure to define areas of hydrologic significance, it is necessary to identify each item of hydrologic information with the particular numbering system in order to provide for filing and analysis. Precipitation stations are identified by latitude and longitude supplemented by the name of the station.

Agency Code

The agency code used in this report for precipitation data consists of four numerals for indicating the agency supplying the data. The agency codes and names used are given below:

Agency Code	Agency Name
1101	Los Angeles County Flood Control District
1200	Los Angeles City Department of Water and Power
2100	Ventura County Flood Control District
3200	San Bernardino City Water Department
4002	U. S. Army Corps of Engineers, Los Angeles
4004	U. S. Weather Bureau
4103	Riverside County Flood Control and Water Conservation District
4111	San Luis Obispo County Farm Agent
4701	Corona Foothill Mutual Lemon Company
4706	Fontana Union Water Company
4730	Crafton Orange Growers Association
4731	Garrett and Company
4732	Gold Buckle Association
4740	Southern California Edison Company
5100	San Bernardino County Flood Control District
5102	Orange County Flood Control District
5717	Temescal Water Company

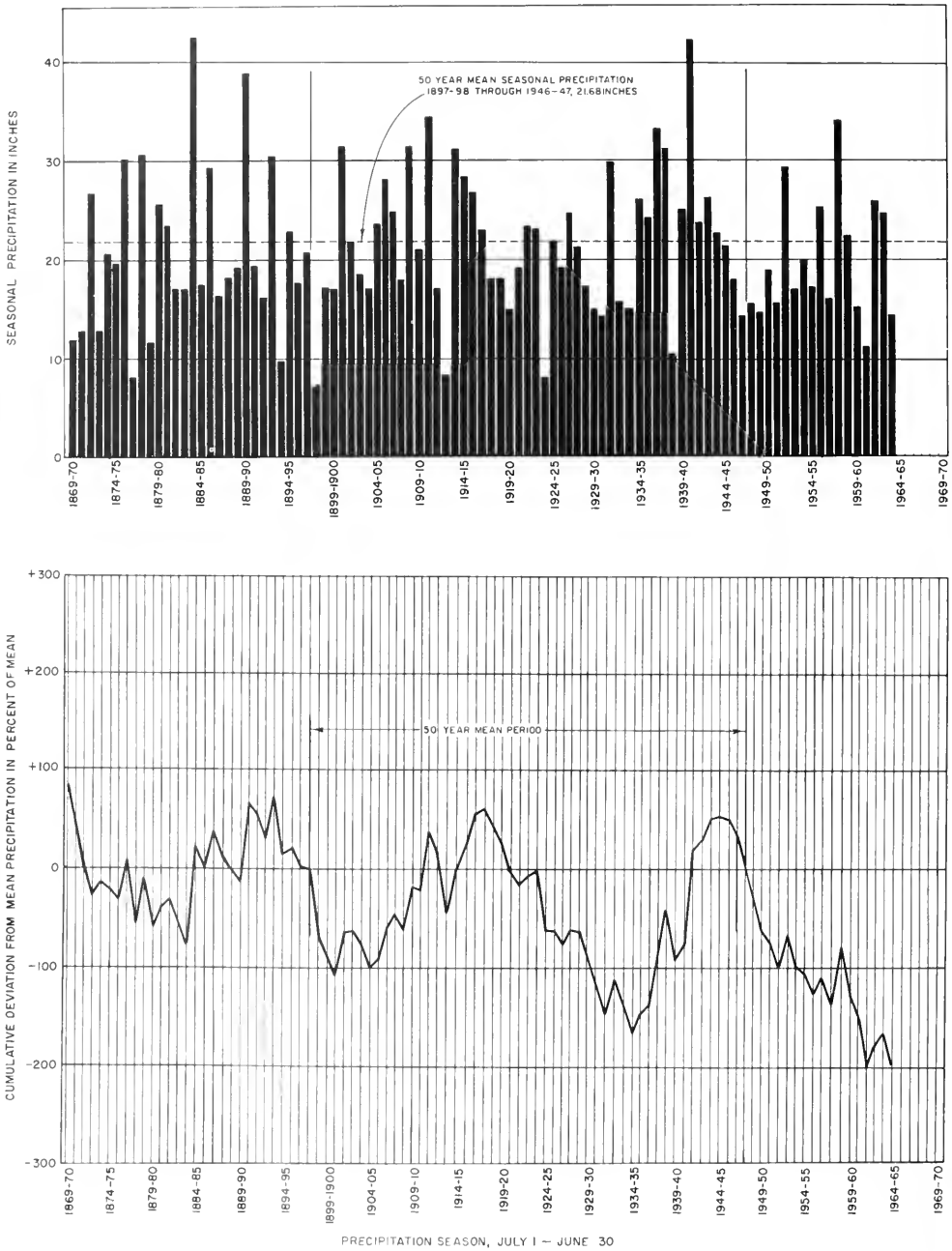
DATA

CLIMATE

TABLE A-1

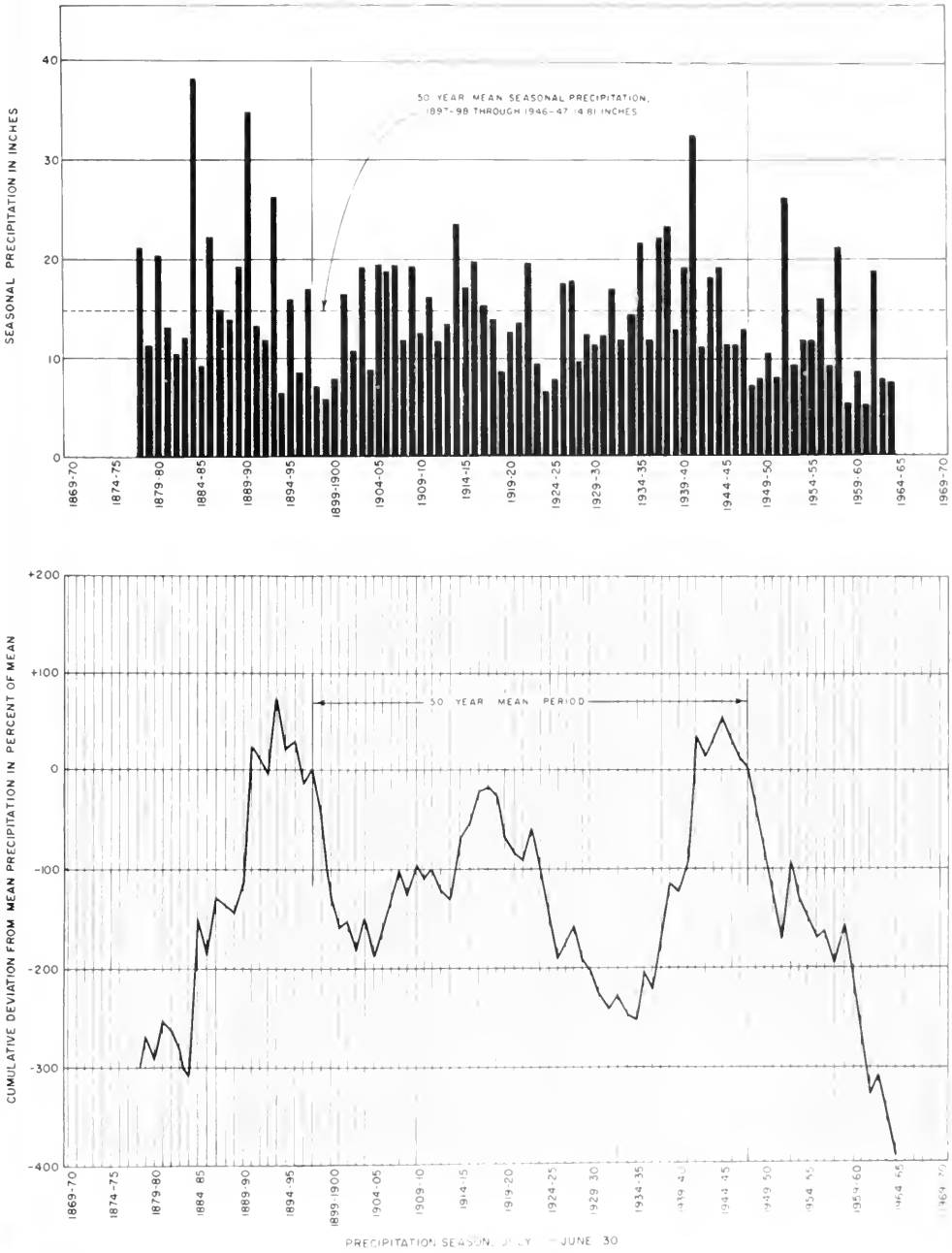
SEASONAL AND MEAN PRECIPITATION AT
SELECTED STATIONS IN SOUTHERN CALIFORNIA

Station	County	50-year mean 1897-1947, in inches	1963-64 season	
			In inches	In percent of mean
		Coastal		
Paso Robles	San Luis Obispo	15.82	10.27	65
San Luis Obispo	San Luis Obispo	21.68	14.69	68
Santa Maria	Santa Barbara	13.52	7.68	57
Santa Barbara	Santa Barbara	18.56	10.19	55
Ventura	Ventura	15.59	9.54	61
Los Angeles	Los Angeles	14.81	7.93	54
Pomona	Los Angeles	18.21	12.99	71
Santa Ana	Orange	14.16	9.71	69
San Bernardino	San Bernardino	17.21	14.49	84
Oceanside	San Diego	12.38	9.29	75
San Diego	San Diego	10.36	7.05	68
		Interior		
Bishop	Inyo	6.14	3.07	50
Barstow	San Bernardino	4.17	3.54	85
Blythe	Riverside	4.03	5.88	146
Brawley	Imperial	2.40	2.53	105

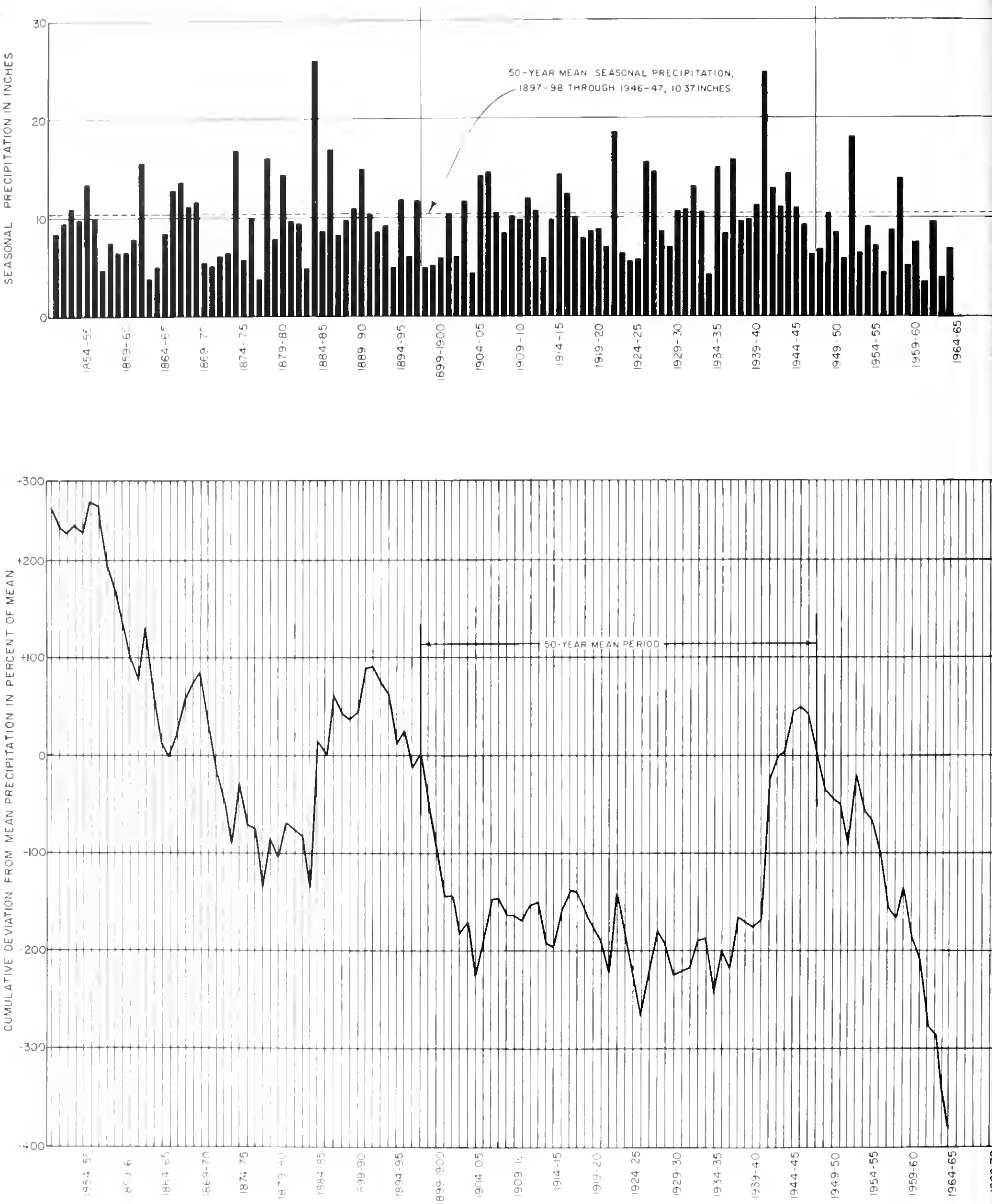


REPRESENTATIVE PRECIPITATION CHARACTERISTICS FOR SAN LUIS OBISPO

DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1961

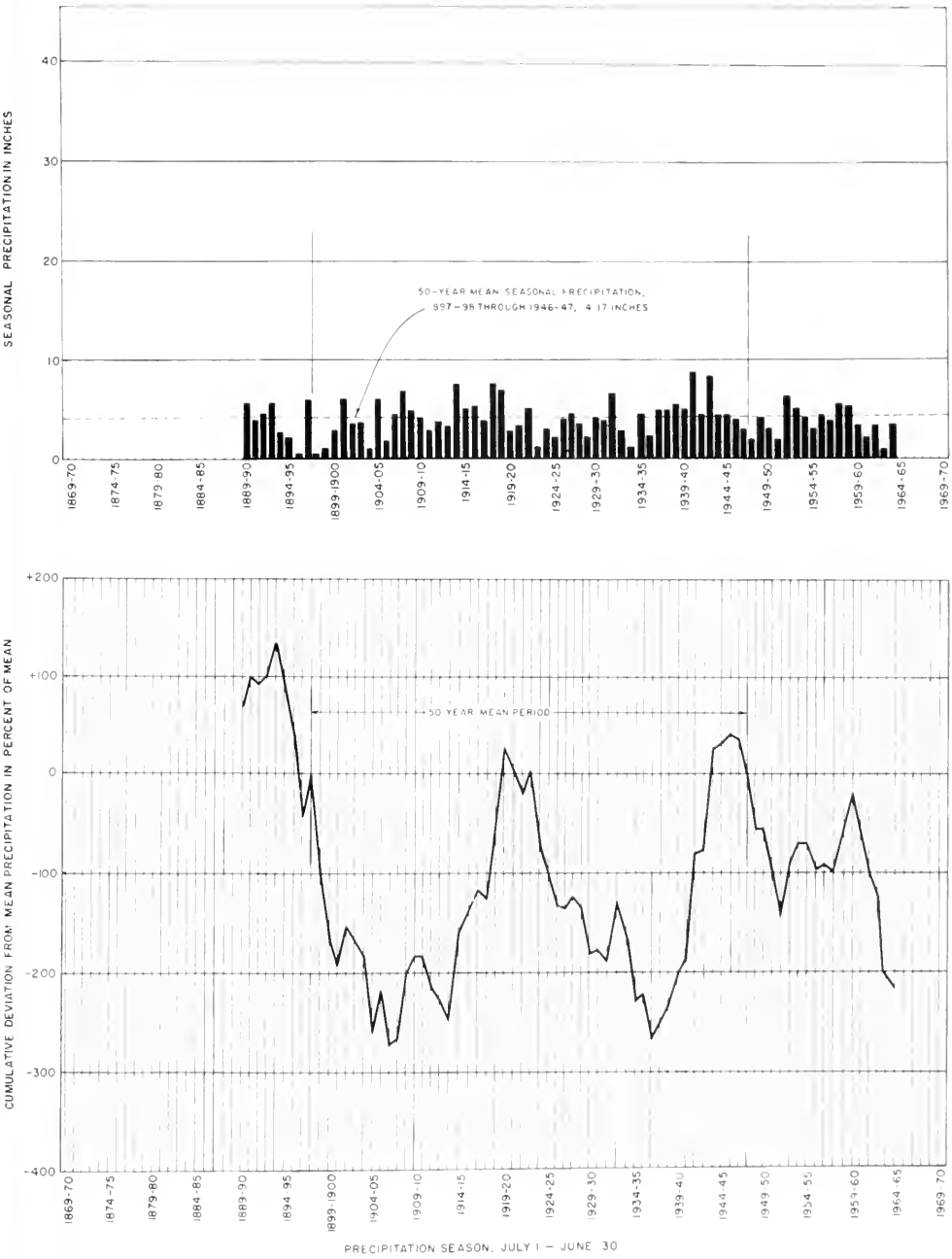


REPRESENTATIVE PRECIPITATION CHARACTERISTICS FOR LOS ANGELES



REPRESENTATIVE PRECIPITATION CHARACTERISTICS FOR SAN DIEGO

DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1966



REPRESENTATIVE PRECIPITATION CHARACTERISTICS FOR BARSTOW

TABLE A-2

CUMULATIVE MONTHLY PRECIPITATION
AT SAN LUIS OBISPO, LOS ANGELES,
SAN DIEGO AND BARSTOW

Month	Cumulative monthly precipitation at San Luis Obispo			Cumulative monthly precipitation at Los Angeles			Cumulative monthly precipitation at San Diego			Cumulative monthly precipitation at Barstow		
	50-year mean 1897-1947, in inches	1963-64 Season: In inches	1963-64 Season: In percent of mean	50-year mean 1897-1947, in inches	1963-64 Season: In inches	1963-64 Season: In percent of mean	50-year mean 1897-1947, in inches	1963-64 Season: In inches	1963-64 Season: In percent of mean	50-year mean 1897-1947, in inches	1963-64 Season: In inches	1963-64 Season: In percent of mean
July	0.01	0	0	0.01	0	0	0.03	0	0	0.15	0	0
August	0.05	0	0	0.03	0.02	67	0.09	0	0	0.41	0.32	78
September	0.28	0.19	68	0.31	1.33	429	0.23	1.90	826	0.58	1.90	328
October	1.09	2.13	195	0.90	1.90	211	0.79	2.03	257	0.87	2.71	311
November	2.76	6.22	225	1.96	4.05	207	1.61	3.88	241	1.16	3.19	275
December	6.56	6.37	97	4.46	4.05	91	3.59	3.98	111	1.75	3.19	182
January	11.50	9.38	82	7.41	5.48	75	5.51	5.28	96	2.41	3.19	132
February	16.02	9.50	59	10.78	5.48	51	7.67	5.65	74	3.04	3.19	105
March	19.62	11.60	59	13.45	7.27	54	9.32	6.62	71	3.72	3.32	89
April	20.96	13.29	63	14.40	7.60	53	10.05	6.82	68	3.98	3.39	85
May	21.54	14.32	66	14.74	7.61	52	10.32	6.97	68	4.08	3.54	87
June	21.68	14.69	68	14.81	7.93	54	10.36	7.05	68	4.17	3.54	85

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
CENTRAL COASTAL DRAINAGE PROVINCE (T)						
			T-09 Salinas Hydro Unit			
T-09.H	35-19-42	120-29-19	1,350	13.08	4004	Salinas Dam
	35-22-27	120-38-07	1,153	19.99	4004	Santa Margarita Booster
	35-21-59	120-38-16	1,250	19.97	4004	Santa Margarita 2SW
	35-32-06	120-36-41	1,150	7.82	4111	Runitz Ranch
	35-32-56	120-42-21	800	11.27	4111	Templeton
	35-37-40	120-41-03	700	10.27	4004	Paso Robles
	35-40-42	120-38-14	803	8.33	4004	Paso Robles Airport
			T-10 San Luis Obispo Hydro Unit			
T-10.B	35-17-51	120-39-45	300	14.69	4004	San Luis Obispo Poly
	35-20-16	120-41-17	625	14.99	4004	Camp San Luis Obispo
			T-11 Carrizo Plain Hydro Unit			
T-11.0	34-14-47	119-55-01	1,975	6.41	4111	Soda Lake (Werling)
	35-21-14	119-59-06	2,050	4.85	4111	Carissa Plain (Beck)
	35-23-42	120-05-41	2,040	7.02	4111	Carissa Plain (Cooper)
			T-12 Santa Maria-Cuyama Hydro Unit			
T-12.A	34-54-13	120-26-56	238	7.68	4004	Santa Maria Airport
T-12.B	34-54-36	120-11-08	3,248	15.63	4002	Tepusquet Peak
T-12.C	34-56-18	119-37-27	2,240	4.96	4004	Cuyama
			T-13 San Antonio Hydro Unit			
T-13.0	34-44-38	120-16-53	565	10.57	4004	Los Alamos
	34-45-47	120-25-30	320	10.24	4004	Harris Gaging Station
			T-14 Santa Ynez Hydro Unit			
T-14.A	34-39-42	120-28-32	72	9.77	4004	Lompoc Sewage Plant
	34-35-20	120-29-40	1,000	15.82	4002	San Miguelito Cn.
T-14.C	34-32-00	120-10-30	680	15.01	4002	Nojaqui Park
T-14.D	34-35-06	119-59-12	781	12.42	4004	Cachuma Dam

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			T-14 Santa Ynez Hydro Unit (continued)			
T-14.E	34-28-57	119-30-32	2,060	18.54	4004	Juncal Dam
	34-31-25	119-41-17	1,250	16.27	4004	Gibralter Dam No. 2
	34-31-32	119-57-26	4,000	19.86	4004	Santa Barbara TV Peak
			T-15 Santa Barbara Hydro Unit			
T-15.A	34-26-57	120-28-15	110	11.51	4002	Point Conception
T-15.C	34-25-47	119-50-36	9	9.40	4004	Santa Barbara Airport
	34-25-48	119-42-05	100	10.19	4004	Santa Barbara
	34-27-54	119-42-30	1,000	16.99	2100	Doulton Tunnel

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			LOS ANGELES DRAINAGE PROVINCE (U)			
			U-02 Ventura River Hydro Unit			
02.A	34-16-47	119-17-28	50	9.54	4004	Ventura-Star Free Press
	34-20-35	119-17-43	215	10.37	2100	Kingston Reservoir
	34-22-25	119-13-42	800	12.03	2100	Canada Larga-Barrett Rn.
02.B	34-22-06	119-20-12	400	14.94	2100	Casitas Rn.
	34-23-42	119-18-03	505	13.60	2100	Oakview F. S.
	34-25-32	119-21-22	750	14.00	2100	Selby Rn. No. 1
	34-25-51	119-18-53	650	13.50	2100	Rancho Matilija
	34-28-55	119-17-30	875	15.44	4004	Wheeler Springs 2SSW
02.C	34-24-44	119-10-08	2,570	15.83	2100	Meher Mt.-Sulpher Mt. Rd.
	34-26-08	119-08-02	1,560	15.00	2100	Ventura Co. Fire Sta.-Ojai
	34-26-09	119-11-36	1,250	14.81	2100	Dennison Rn.
	34-26-52	119-14-33	750	13.59	4004	Ojai
	34-27-58	119-10-49	1,360	14.51	2100	Thacher School
			U-03 Santa Clara-Calleguas Hydro Unit			
03.A	34-08-42	119-12-30	10	7.30	2100	Port Hueneme
	34-09-26	119-04-39	20	6.58	2100	Davis Rn.
	34-11-26	119-10-27	49	9.01	4004	Oxnard
	34-12-17	119-04-04	60	7.44	2100	American Crystal Sugar
	34-16-40	119-12-10	300	10.76	2100	Saticoy-Del Mar
	34-16-47	119-15-27	200	9.71	2100	Borgstrom
03.B	34-17-05	119-08-38	170	12.39	2100	Saticoy-Culbertson
	34-19-55	119-07-25	335	10.56	2100	Limoneira Rn.
	34-21-16	119-03-50	265	12.10	4004	Santa Paula-Ventura Co. F.D.
	34-21-23	119-04-25	275	11.84	2100	Blanchard Inv. Co.
	34-24-44	119-10-08	2,570	15.83	2100	Meher Mt.-Sulpher Mt. Rd.
	34-26-08	119-08-02	1,560	15.00	2100	Ventura Co. Fire Sta.-Ojai
03.C	34-21-54	118-56-42	400	11.98	2100	Barsdale-Young Rn.
	34-22-27	119-00-50	400	10.47	2100	Pine Tree Rn.
	34-23-03	118-57-41	430	11.59	2100	Rancho Sespe
	34-23-54	118-55-06	450	12.28	2100	Fillmore Citrus Assn.
	34-24-10	118-55-34	435	12.04	4004	Fillmore IWNW
	34-35-50	119-19-30	4,150	16.35	4004	Wheeler Springs 7N
03.D	34-23-42	118-51-06	600	10.03	2100	Double H-N Rn.
	34-24-08	118-44-10	675	10.54	2100	Newhall Rn.
	34-24-22	118-45-22	730	9.44	2100	Camulos Rn. Qtrs.
	34-24-39	118-47-37	700	10.40	2100	Piru Citrus Assn.
	34-44-37	118-42-43	4,025	13.44	4004	Sandbergs Quail Lake P.S.
	34-47-18	118-49-54	3,650	13.44	1101	Gorman

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PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
		U-03 Santa Clara-Calleguas Hydro Unit (continued)				
U-03.E	34-21-24	118-39-42	2,850	9.64	1101	Santa Susanna Mt.-Salt Cn.
	34-22-46	118-09-03	5,600	18.67	1101	Little Gleason
	34-23-07	118-31-54	1,243	9.34	4004	Newhall-Soledad Div. Hdqtr.
	34-23-27	118-04-50	4,950	12.06	1101	Tujunga-Mill Cr. Sum.
	34-23-45	118-17-12	4,450	13.42	1101	Magic Mtn.
	34-25-21	118-34-26	1,096	6.24	1101	Saugus-Edison Substation
	34-26-04	118-26-06	1,625	7.99	1101	Mint Cn.-Dyer
	34-26-36	118-04-00	4,500	9.98	1101	Santiago Cn.
	34-27-02	118-11-52	2,550	7.52	1101	Action-Camp No. 2
	34-27-51	118-09-25	2,900	6.51	1101	Action-Aliso Cn.-Blum Rn.
	34-28-55	118-31-32	1,511	8.26	1101	Dry Canyon Res.
	34-29-17	118-08-29	3,135	5.78	4004	Vincent P. S.
	34-29-31	118-16-30	2,920	7.01	4004	Action-Escondido Cn.
	34-30-47	118-21-31	2,350	8.57	1101	Mint Cn.--The Oaks
	34-30-50	118-14-10	3,250	10.24	1101	Action-Hubbard
	34-32-02	118-31-27	1,580	10.87	1101	San Francisquito Cn. P.H. 2
	34-35-14	118-21-45	3,050	12.60	4004	Bouquet Cn.
	34-35-20	118-27-10	2,100	12.69	4004	Saugus P. P.
	34-36-28	118-33-40	2,075	16.33	4004	Elizabeth Lake Cn.
	34-40-27	118-25-49	3,275	13.93	4004	Pine Cn. P. S.
U-03.F	34-10-43	118-50-59	810	9.39	4004	Thousand Oaks-Conejo F. S.
	34-11-46	118-56-05	850	8.25	2100	Newbury Park Acedemy
	34-14-10	118-56-01	275	9.68	2100	Santa Rosa Valley-Janss Rn.
	34-14-52	118-50-26	680	9.59	2100	Everett Rn.
	34-15-44	118-39-32	1,075	10.38	4004	Susanna Knolls
	34-15-47	118-59-46	300	8.40	2100	Somis-Snyder Rn.
	34-16-08	119-02-04	375	10.43	2100	Somis-Aggen Rn.
	34-16-42	118-52-34	520	9.32	4004	Moorpark 1SSE
	34-17-45	118-52-34	720	10.61	2100	Ven. Co. W. W. Dist. 1
	34-17-53	118-43-16	1,080	7.15	2100	Tapo (Mutual Valley) W. C.
	34-18-58	118-53-36	851	10.77	2100	Kerr Bros.
		U-04 Malibu Hydro Unit				
U-04.A	34-05-03	118-35-57	747	14.68	4004	Topanga Cn. R. S.
U-04.B	34-04-41	118-41-35	600	13.76	1101	Monte Nido Cn.
	34-06-20	118-47-30	975	13.03	1101	Seminole Hot Springs
	34-09-00	118-53-59	1,040	11.95	1101	Lake Sherwood Estates
U-04.C	34-01-10	118-47-46	115	9.28	1101	Zuma Cn. P. S.
U-04.D	34-04-38	118-52-47	1,530	12.58	4004	Lechuza P. S.
		U-05 L. A.-San Gabriel River Hydro Unit				
U-05.A	33-43-15	118-16-17	85	8.01	4004	San Pedro
	33-44-33	118-24-31	150	5.20	1101	Pt. Vicente L. H.

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PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
	U-05 L. A.-San Gabriel River Hydro Unit (continued)					
U-05.A	33-46-06	118-11-28	150	7.74	1101	Long Beach Los Alamitos Ld.
	33-46-10	118-11-37	68	7.93	1101	Long Beach Vets Memorial
	33-46-30	118-22-58	1,240	8.02	1101	San Pedro Hills
	33-46-46	118-08-36	15	7.75	1101	Long Beach 10th-Roswell
	33-47-16	118-12-08	11	7.35	1101	Long Beach-City Automatic
	33-47-27	118-15-30	40	8.03	1101	Wilmington-City Engr.
	33-47-31	118-10-13	40	6.09	1101	Long Beach-Hamilton Bowl
	33-47-49	118-10-03	140	7.65	4004	Signal Hill-City Hall
	33-47-58	118-23-29	216	5.69*	4004	Palos Verdes Estates
	33-48-38	118-04-38	23	7.44	1101	Los Alamitos
	33-49-52	118-19-41	85	6.96	4004	Torrance
	33-50-00	118-10-12	80	8.05*	1101	Long Beach-Keever Ave.
	33-50-23	118-23-22	90	6.18	1101	Redondo Beach
	33-50-35	118-07-09	47	6.83	1101	Lakewood-Montana Rn.
	33-51-48	118-04-58	52	7.92	1101	Artesia-Barr Lumber Co.
	33-52-07	118-19-55	65	7.55	1101	La Fresa Substation
	33-52-20	118-11-55	55	8.13	1101	Long Beach-Neece St.
	33-52-44	118-07-31	68	8.39	1101	Bellflower-McClurg
	33-53-00	118-23-19	182	6.98	1101	Manhattan Beach
	33-53-13	118-00-56	86	7.49	1101	La Mirada-Standard Oil
	33-53-30	118-09-36	70	8.27	1101	Paramount F. S.
	33-53-42	118-13-34	68	8.36	1101	Compton F. S.
	33-53-52	118-04-00	85	8.38	1101	Norwalk C. of C.
	33-54-57	118-25-50	150	7.44	1101	El Segundo-Standard Oil
	33-55-18	118-09-44	90	7.65	1101	Rancho Los Amigos
	33-56-18	118-08-03	130	8.17	4004	Downey F. D.
	33-56-56	118-15-17	121	8.29	1101	L. A.-96th-Central
	33-57-12	117-59-56	301	8.54	1101	East Whittier
	33-57-54	118-21-15	155	7.63	1101	Inglewood F. S.
	33-58-27	118-01-57	340	9.39	4004	Whittier City Hall
	33-58-33	118-12-25	147	8.27	1101	Huntington Park City Yard
	33-58-37	118-08-48	140	8.58	1101	Laguna Bell-S.C.E. Co.
	33-59-21	118-27-15	55	8.89	1101	Venice F. S.
	34-00-43	118-29-27	94	10.03	4004	Santa Monica
	34-01-00	118-23-17	75	8.59	4004	Culver City
	34-02-00	118-18-46	203	8.58	1101	Clark Mem. Library
	34-02-42	118-27-08	232	9.13	1101	Sawtelle-West L. A.
	34-03-08	118-14-46	385	8.61	1101	L. A. W. D.-2nd-Hill
	34-03-09	118-14-13	300	8.57	1101	L. A. W. D.-Ducommon St.
	34-03-19	118-14-26	548	7.93	4004	L. A. City
	34-03-19	118-27-22	355	8.69	1101	Sawtelle-Soldiers Home
	34-03-34	118-33-25	700	9.71	1101	Sa. Ynez Cn.-Paseo Miramar
	34-03-50	118-21-29	175	8.84	1101	Hancock Park
	34-04-27	118-23-57	290	9.67	1101	Bev. Hills City Hall
	34-05-10	118-28-57	1,025	12.52	1101	Mt. St. Marys College
	34-05-11	118-26-45	540	10.50	4004	Stone Cn.-Bell Air Hotel
	34-05-19	118-17-34	335	9.01	1101	L. A. City College

*Partially estimated.

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PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
	U-05 L. A.-San Gabriel River Hydro Unit (continued)					
U-05.A	34-06-21	118-27-13	865	12.38	1101	Stone Cn. Res.
	34-07-04	118-19-55	750	9.83	1101	Hollywood Dam
	34-07-06	118-10-39	620	9.94	1101	Highland Park-Lindsay
	34-07-14	118-24-38	867	11.17	1101	Upper Franklin Res.
	34-07-38	118-30-03	1,625	10.67*	1101	Mandeville Cn.-Fire Rd.
U-05.B	34-06-08	118-15-54	455	8.97	1101	Silver Lake Res.
	34-07-18	118-17-04	850	10.34	1101	Griffith Park Nursery
	34-07-32	118-16-58	900	9.53*	1101	Griffith Park Little Cn.
	34-07-45	118-24-20	1,100	11.06*	1101	Franklin Cn. Mulholland F.S
	34-07-51	118-29-26	1,425	10.76*	1101	Sepulveda Cn.-F.S. #2
	34-07-52	118-28-42	1,325	9.78*	1101	Mulholland-Kirkman
	34-08-02	118-17-18	650	10.10*	1101	Griffith Park Zoo
	34-09-00	118-14-27	603	10.70	1101	Glendale-McIntyre
	34-09-02	118-10-57	950	8.17	1101	Eagle Rock Substation
	34-09-07	118-15-40	530	10.89	4004	Glendale-Stapenhorst
	34-09-21	118-18-20	470	11.27	1101	L. A. Headworks Plant
	34-09-23	118-21-56	593	9.70	1101	No. Hollywood-Blix
	34-09-24	118-38-14	924	11.63	1101	Calabasas-Farmer No. 2
	34-09-54	118-15-05	615	11.44	1101	Glendale-Jones N. 1
	34-10-02	118-28-06	680	9.12	4004	Sepulveda Dam
	34-10-	118-35-56	891	9.88*	1101	Girard-Brant Rn.
	34-10-55	118-08-15	1,125	13.79	4004	Altadena
	34-10-55	118-18-24	635	9.86	4004	Burbank Fire Dept.
	34-11-39	118-23-17	717	8.77	1101	Lankershim P.P.
	34-12-18	118-17-05	1,610	9.70	1101	Sunset Dam
	34-13-15	118-13-45	1,600	16.96	1101	Pickens Debris Basin
	34-13-28	118-14-24	1,565	16.94*	4004	La Crescenta FC 251
	34-13-34	118-36-58	865	8.90	1101	Chatsworth Res.
	34-13-52	118-28-04	828	9.68*	1101	Lindomar Nursery
	34-14-20	118-13-28	2,225	18.20	1101	Briggs Terrace
	34-15-21	118-24-24	955	10.06	1101	Pacoima-Warehouse
	34-15-23	118-36-19	957	10.63	4004	Chatsworth-LACFCD No. 24D
	34-15-43	118-23-50	1,110	10.43	1101	Hansen Dam
	34-15-50	118-16-13	2,450	14.27	4004	Haines Cn.-Lower
	34-16-18	118-15-07	3,450	16.06	4004	Haines Cn.-Upper
	34-16-40	118-28-06	977	11.88	4004	San Fernando
	34-16-58	118-30-46	1,150	12.13*	1101	Granada Pump Plant
	34-17-18	118-28-54	1,150	12.69	1101	Van Norman Lake
	34-17-31	118-11-15	2,315	17.42	4004	Big Tujunga Dam
	34-18-02	118-06-39	3,675	18.33	4004	Colbys FC 53D
	34-18-40	118-28-20	1,250	12.25*	1101	Sylmar Packing Corp.
	34-19-48	118-23-59	1,500	13.73	4004	Pacoima Dam FC 33AE
	34-20-18	118-36-44	3,340	13.08	1101	Sa. Susanna Mt.-Devils Cn.
	34-21-18	118-27-02	3,175	17.88	1101	Wilson Cn.
	34-22-44	118-01-53	6,925	14.38	1101	Pacific Min.
	34-22-46	118-09-03	5,600	18.67*	1101	Little Gleason
	34-23-27	118-04-50	4,950	12.06*	1101	Tujunga-Mill Cr. Summit

* Partially estimated.

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PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
		U-5 L. A.-San Gabriel River Hydro Unit (continued)				
U-05.C	34-07-41	118-06-40	670	11.10	1101	San Marino-Huntgtn Library
	34-08-14	118-07-25	795	12.75	1101	Pasadena-Cal Tech.
	34-08-54	118-08-36	864	12.02	4004	Pasadena
	34-09-27	118-02-36	665	15.09	1101	Sierra Madre-Pegler
	34-09-31	118-02-01	611	15.21	1101	Arcadia P.P. No. 1
	34-09-47	118-02-21	700	15.79	1101	Sierra Madre P.P.
	34-10-11	118-02-51	985	18.82	1101	Sierra Madre-Mira Monte
	34-10-25	118-03-38	1,180	16.95	1101	Bailey Debris Dam
	34-10-34	118-02-32	1,100	18.59	1101	Sierra Madre Dam
	34-10-48	118-07-01	1,186	13.49	1101	Altadena Golf Course
	34-10-57	118-11-47	1,345	12.50	1101	Flintridge F. S.
	34-11-03	118-01-09	1,400	18.26	1101	Santa Anita Dam No. 2
	34-11-36	118-05-18	2,550	17.50	1101	Henninger Flats
	34-11-52	118-11-05	1,155	13.20	1101	Arroyo Seco Patrol
	34-12-10	118-12-40	1,300	14.35	1101	Descanso Gardens
	34-12-12	118-11-40	1,270	13.91*	1101	La Canada-Roberts
	34-12-27	118-10-00	1,181	13.72	1101	Arroyo Seco-Chlorine Plant
	34-12-30	118-02-00	2,650	25.28	4004	Hoegees FC 60A
	34-12-33	118-10-12	1,220	14.27	4004	Arroyo Seco R. S.
	34-13-37	118-06-33	4,500	23.15	1101	Mt. Lowe
	34-13-40	118-12-42	2,020	16.31	1101	Alta Canyada-Carpenter
	34-14-40	118-10-50	1,800	14.77	1101	Oak Wilde-Phillips
U-05.D	33-59-40	117-59-37	860	12.57	1101	Puente Hills
	34-00-12	117-52-14	488	10.85	4004	Walnut P. S.
	34-00-12	117-56-19	380	11.78*	1101	Puente-Bixby Rn.
	34-00-13	117-51-09	533	11.17	1101	Walnut Fruit Grower Assoc.
	34-02-35	118-04-50	285	9.96*	1101	Potrero Heights
	34-03-52	117-57-04	358	10.40*	1101	West Covina-Hurst Rn.
	34-04-57	117-52-28	575	12.61*	4004	Covina-Temple F.C. 193
	34-05-36	117-57-40	386	11.63	1101	Baldwin Park Exper. Sta.
	34-06-05	118-07-52	533	11.57	1101	Alhambra
	34-06-11	118-05-56	450	12.06	4004	San Gabriel F.D.
	34-06-18	118-06-32	472	11.94*	1101	San Gabriel-Bruington 2
	34-06-26	117-48-19	960	12.88	4004	San Dimas F.C. 95
	34-06-58	118-09-05	660	11.16	1101	So. Pasadena-City Hall
	34-07-39	117-47-42	1,110	14.47	1101	San Dimas-Stevens
	34-07-57	117-53-32	615	14.28	1101	Azusa-Foothill Rn.
	34-08-03	117-54-17	612	13.98	4004	Azusa City Park
	34-08-22	117-51-54	782	14.15	1101	Glendora-M.C. Irrig. Co.
	34-08-23	117-51-33	822	14.81	4004	Glendora-West F.C. 185
	34-08-50	117-52-01	835	15.59	1101	Glendora-Brown
	34-08-57	118-00-04	560	12.94	1101	Monrovia News-Post
	34-09-05	117-46-28	1,350	16.88	1101	San Dimas Dam
	34-09-20	117-54-28	750	16.28	4004	San Gabriel Cn. P. H.
	34-09-22	117-50-57	1,165	17.04	1101	Glendora-Englehart

*Partially estimated.

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PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
	U-05 L. A.-San Gabriel River H ydro Unit (continued)					
U-05.D	34-09-46	117-54-15	770	16.41	1101	Rogers Cn.
	34-09-58	117-59-37	962	17.20	1101	Monrovia-5 Points
	34-10-04	117-46-02	1,435	17.62	1101	San Dimas R. S.
	34-10-06	117-48-36	1,575	18.58	4004	Big Dalton Dam
	34-10-34	117-59-14	1,378	18.55	1101	Sawpit Dam No. 2
	34-10-53	117-52-43	1,210	17.43	1101	Morris Dam No. 2
	34-11-38	117-57-52	2,725	21.88	1101	Sawpit Cn.-Deer Park
	34-11-48	117-41-45	5,200	24.59	1101	San Dimas Cn.-Fern Cn.
	34-12-19	117-51-40	1,481	19.01	4004	San Gabriel Dam
	34-12-20	117-45-40	2,750	18.60	1101	Tanbark Flats
	34-13-27	118-03-32	5,650	23.96	1101	Mt. Wilson Observatory
	34-13-33	117-50-48	1,500	18.83	1101	San Gabriel Dam 1 Camp
	34-13-36	118-03-57	5,709	19.96	4004	Mt. Wilson F.C. 338B
	34-13-51	118-02-19	3,325	24.82	1101	Sturtevant Camp
	34-14-10	117-48-18	1,600	17.86*	1101	San Gab. Cn.-E. Fork 2
	34-14-20	117-51-36	1,530	17.75*	1101	Camp Rincon-Mason
	34-17-04	117-51-58	4,025	22.60	1101	Bear Cn.-San Gab. W. Fork
	34-18-58	117-50-30	5,370	25.39	4004	Crystal Lake F. C. 283C
	34-20-23	117-56-21	7,925	20.67	1101	Waterman Mtn.
	34-21-18	117-52-32	6,665	23.33	1101	Cedar Springs-Prison Camp
	34-22-26	117-45-05	6,600	28.03	1101	Vincent Gulch
U-05.E	34-03-17	117-45-02	880	12.36*	1101	Pomona F. S.
	34-03-58	117-46-21	855	12.99	4004	Pomona
	34-05-30	117-48-22	1,030	11.88	1101	Puddingstone Dam
	34-06-03	117-46-12	1,050	13.37	1101	La Verne Police Dept.
	34-07-22	117-43-11	1,403	14.16	1101	Claremont-Indian Hills
	34-08-54	117-41-52	1,810	16.87	1101	Padua Hills P. S.
U-05.F	33-48-38	118-04-38	23	7.44	1101	Los Alamitos
	33-51-33	117-53-06	190	8.20	5102	Placentia-A. U. Water Co.
	33-51-57	117-59-50	75	7.98	1101	Buena Park
	33-52-15	117-54-24	195	10.22	5102	Fullerton-Knowlton
	33-52-42	117-52-24	225	9.21	5102	Placentia Mutual Orange
	33-53-17	117-49-03	395	11.17	4004	Yorba Linda
	33-53-25	117-55-31	275	9.40	4004	Brea Dam
	33-55-58	117-56-38	315	9.01	5102	La Habra F. S.
	33-57-08	117-55-26	645	10.70	1101	Puente Hills-Wessel Rn.
	33-58-41	117-49-58	748	10.87	1101	Diamond Bar Rn.

*Partially estimated.

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PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			LAHONTAN DRAINAGE PROVINCE (W)			
			W-01 Mono Hydro Unit			
W-01.0	37-45-07	119-08-36	9,120	16.01	1200	Gem Lake
	37-53-32	119-05-45	6,980	8.46	1200	Cain Rn.
	37-56-10	119-13-56	9,500	18.86	1200	Ellery Lake
			W-03 Owens Hydro Unit			
W-03.B	37-03-10	118-13-40	3,850	3.33	1200	Tinemaha Res.
	37-07-31	118-25-58	8,200	9.15	1200	Big Pine Cr.-Glacier Lodge
	37-08-31	118-19-22	4,670	3.46	1200	Big Pine P. P. No. 3
	37-10-32	118-33-37	9,600	13.15	4004	South Lake
	37-12-48	118-36-48	9,140	11.35	1200	Lake Sabrina
	37-22-17	118-21-56	4,108	3.07	4004	Bishop W. B. Airport
	37-28-12	118-43-24	9,360	12.85	1200	Rock Cr. Store
	37-35-15	118-42-16	6,790	5.80	1200	Long Valley Res.
W-03.C	36-08-18	117-57-20	3,825	5.02	4004	Haiwee
	36-25-09	118-02-15	3,710	2.69	1200	Cottonwood Gates
	36-36-01	118-03-38	3,720	3.04	1200	Lone Pine
	36-40-15	118-05-40	3,725	2.69	1200	L.A.A.-Alabama Hills
	36-48-05	118-12-08	3,950	2.96	4004	Independence
	36-58-31	118-12-31	3,825	2.68	1200	L.A.A.-Intake
	37-03-10	118-13-40	3,850	3.33	1200	Tinemaha Res.
			W-05 Deep Springs Hydro Unit			
W-05.0	37-22-15	117-59-03	5,225	2.55	4004	Deep Springs College
			W-21 Searles Hydro Unit			
W-21.A	35-45-42	117-22-27	1,695	4.66	4004	Trona
			W-24 Indian Wells Hydro Unit			
W-24.A	35-57-07	117-55-31	3,510	5.95	1200	Little Lake
W-24.B	35-35-40	117-55-04	3,310	4.23	1200	L.A.A.-Freeman Sta.

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			W-26 Antelope Hydro Unit			
W-26.A	34-20-23	117-56-21	7,925	20.67	1101	Waterman Mtn.
	34-20-50	117-49-57	7,590	35.35	1101	Little Jimmy Springs
	34-22-26	117-45-05	6,600	28.03	1101	Vincent Gulch
	34-22-44	118-01-53	6,925	14.38	1101	Pacific Mtn.
	34-22-45	117-41-20	6,860	20.42	4004	Big Pines Park
	34-22-53	117-41-05	7,500	15.75	4004	Table Mtn.
	34-23-53	117-43-40	6,150	16.14*	1101	Jackson Lake-Big Pines
	34-25-02	117-58-17	3,925	10.01	1101	Little Rock-Sycamore Camp
	34-26-36	118-04-00	4,500	9.98	1101	Santiago Cn.
	34-26-44	117-51-02	3,715	7.34	4004	Valyermo R. S.
	34-27-35	117-55-58	3,996	8.42*	1101	Pleasant View Mesa-Neal
	34-28-05	117-44-51	3,810	6.04	1101	Llano-Shawnee Hills Rn.
	34-30-18	118-01-40	3,035	6.80	1101	Little Rock Creek
	34-32-07	117-58-30	2,815	6.31	1101	Calivali Farms
	34-32-14	118-03-48	2,855	6.94	1101	Palmdale-Circle C
	34-34-25	118-06-45	2,662	7.95*	1101	Palmdale-Co. Maint. Yard
	34-34-42	118-10-58	2,950	8.87*	1101	Anaverde Valley-Platt
	34-36-59	118-05-02	2,517	5.35	4004	Palmdale Airport
	34-37-12	118-17-08	3,125	13.24	1101	Leonis Valley-Ritter Rn.
	34-37-23	118-13-57	2,900	8.37	1101	Bellview-Stratman
	34-39-02	117-50-55	2,680	5.31	1101	Piute Butte-Museum
	34-40-57	118-08-03	2,395	5.67	1101	Lancaster-Hwy. Maint.
	34-42-01	118-07-45	2,352	5.44	4004	Lancaster
	34-42-12	118-18-32	2,450	8.01	1101	Antelope Valley Field Sta.
	34-42-15	118-25-40	3,050	12.35	4004	Fairmont
	34-42-50	118-21-15	2,600	9.20*	1101	Munz Valley Rn.
	34-43-15	118-35-00	3,700	16.10	1101	Sawmill Mtn. Rn.
	34-44-06	117-46-58	3,075	4.67	1101	Hi Vista-Card
	34-44-15	118-27-20	2,865	8.71	1101	Fairmont-Barnes
	34-44-37	118-42-43	4,025	13.44	4004	Sandbergs P.S.
	34-44-47	118-43-29	4,517	11.29	4004	Sandberg W.B.
	35-02-49	118-09-58	2,735	5.15	4004	Mojave
	35-04-07	118-10-29	2,850	5.08	1200	Mojave
			W-28 Mojave Hydro Unit			
W-28.B	34-14-19	117-14-06	5,723	34.30	4004	Squirrel Inn 2
	34-15-06	117-11-30	5,250	34.40	4004	Lake Arrowhead
	34-25-23	117-18-11	3,200	7.98	5100	Hesperia
	34-31-57	117-18-12	2,900	7.07	4004	Victorville P.P.
W-28.E	34-54-03	117-01-17	2,142	3.54	4004	Barstow
W-28.H	35-23-18	116-06-46	1,045	2.33	4004	Baker 9NNW

*Partially estimated.

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			COLORADO RIVER BASIN DRAINAGE PROVINCE (X)			
			X-05 Emerson Hydro Unit			
X-05.0	34-09-44	116-32-25	4,300	7.18	4004	Kee Ranch
			X-09 Dale Hydro Unit			
X-09.A	34-08-03	116-03-12	1,990	5.74	4004	Twentynine Palms
			X-12 Ward Hydro Unit			
X-12.0	34-08-44	115-07-16	922	3.17	4004	Iron Mtn.
			X-13 Piute Hydro Unit			
X-13.C	34-45-48	114-37-08	913	4.04	4004	Needles F.A.A. Airport
			X-15 Colorado Hydro Unit			
X-15.D	33-36-34	114-35-45	266	5.38	4004	Blythe
	33-36-50	114-35-54	268	5.37	4103	Blythe F. S.
	33-36-51	114-42-50	390	4.29	4004	Blythe Airport
			X-17 Chuckwalla Hydro Unit			
X-17.B	33-48-31	115-27-01	973	2.67	4004	Eagle Mtn.
			X-18 Hayfield Hydro Unit			
X-18.0	33-42-18	115-37-44	1,370	2.00	4004	Hayfield P.P.
			X-19 Whitewater Hydro Unit			
X-19.A	34-03-19	116-34-31	2,580	9.67	4004	Morongo Valley
X-19.C	33-51-58	116-44-59	3,440	25.23	4103	Hurley Flat-Twin Lines
	33-55-03	116-46-56	1,815	14.43	4004	Cabazon
	33-55-39	116-58-47	2,580	17.05	4004	Beaumont

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			X-19 Whitewater Hydro Unit (continued)			
X-19.D	33-29-37	116-06-44	-170	3.33	4103	Oasis
	33-34-13	116-04-33	-190	3.39	4103	Mecca State Forestry
	33-38-04	116-09-28	-120	3.60	4004	Thermal Airport
	33-40-11	116-18-08	90	3.72	4103	La Quinta F.S.
	33-42-48	116-13-25	-8	5.01	4103	Indio State Forestry
	33-43-21	116-22-17	263	4.39	4103	Palm Desert
	33-43-37	116-14-40	-20	4.30	4004	Indio-U.S. Date Garden
	33-46-56	116-28-00	300	6.58	4103	Cathedral City F.S.
	33-49-01	116-31-38	411	6.24	4004	Palm Springs
	33-52-13	116-40-55	1,940	14.13	4004	Snow Creek-upper
	33-57-48	116-30-08	1,100	4.49	4103	Desert Hot Springs
			X-22 Anza-Borrego Hydro Unit			
X-22.A	33-16-08	116-24-59	750	6.65	4004	Borrego Desert Park
X-22.C	33-12-33	116-32-30	4,110	14.24	4004	Ranchita
			X-23 Imperial Hydro Unit			
X-23.A	32-40-23	115-28-57	12	2.51	4004	Calexico 2NE
	32-46-02	115-33-52	-32	2.21	4004	El Centro 2SSW
	32-50-57	115-34-06	-69	2.44	4004	Imperial
	32-58-53	115-31-44	-119	2.53	4004	Brawley 2SW
	33-16-41	115-31-23	-55	3.07	4004	Niland
X-23.B	32-44-32	115-57-48	250	2.43	4004	Coyote Wells

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
SANTA ANA DRAINAGE PROVINCE (Y)						
Y-01 Santa Ana River Hydro Unit						
Y-01.A	33-36-15	117-53-00	8	9.84	4004	Newport Beach Harbor
	33-36-26	117-42-07	400	9.95	5102	El Toro-Moulton
	33-38-13	117-47-54	300	11.49	5102	Irvine Co.-Shady Camp
	33-38-26	117-55-20	90	9.30	5102	Costa Mesa-Dod e
	33-39-13	117-42-53	350	10.63	5102	Irvine Co.-Johnson Rn.
	33-39-39	117-59-57	35	8.33	5102	Huntin ton Beach
	33-39-48	117-49-50	80	8.36	5102	Irvine Co.-Old Ranch
	33-40-30	117-45-37	200	10.56	5102	Irvine Co.-Warehouse
	33-40-32	117-47-54	100	9.24	5102	Irvine Co.-Harkel Rd. Camp
	33-41-40	117-42-38	480	11.63	5102	Irvine Rn.-Lambert Auto
	33-41-46	117-42-48	400	10.19	5102	Irvine Co.-Lambert
	33-42-38	117-51-16	55	8.03	5102	Dyler-Holly Sugar Co.
	33-42-39	117-31-59	5,660	25.25	5102	Santiago Peak
	33-42-49	117-59-56	25	6.96	5102	Wintersburg-Slater
	33-42-55	117-45-43	197	11.04	5102	San Joaquin Fruit Co.
	33-43-21	118-00-46	25	7.65	5102	Wintersburg-Murdy Rn.
	33-44-18	117-48-00	106	7.20	5102	Tustin Automatic
	33-44-38	117-52-04	115	9.71	4004	Santa Ana F. S.
	33-45-00	117-52-12	145	10.01	5102	Santa Ana-O.C.F.C.D.
	33-46-13	117-56-03	90	8.20	5102	Garden Grove-Co. Rd. Dept.
	33-46-15	117-43-15	1,000	13.21	5102	Irvine Co.-Limestone Rn.
	33-47-15	117-50-26	216	13.02	5102	Orange-U.S.F.S.
	33-47-44	117-54-08	135	8.97	5102	Anaheim-Katella Substation
	33-48-35	118-00-06	55	9.48	5102	Stanton-Clark
	33-48-52	117-49-20	290	10.13	5102	Villa Park Orchard Assn.
	33-49-12	117-54-48	147	8.89	5102	Anaheim Automatic
	33-49-46	117-54-42	150	8.47	5102	Anaheim Water Works
	33-50-16	117-50-43	230	10.14	5102	Olive H ts. Citrus Assn.
	33-51-33	117-53-06	190	8.20	5102	Placentia-A.U. Water Co.
Y-01.B	33-49-51	117-34-41	1,225	16.19	4741	Corona-Foothill Lemon 2
	33-50-33	117-34-36	1,650	13.44	4741	Corona-Foothill Lemon 1
	33-52-23	117-33-56	650	12.39	5717	Corona-Temescal Water 3
	33-55-58	117-56-38	315	9.01	5102	La Habra F. S.
	33-57-06	117-23-46	820	9.36	4004	Riverside Fire Sta. No. 3
	33-57-37	117-16-42	3,040	12.04	4103	Box Springs
	33-58-21	117-19-48	1,050	10.40	4004	Riverside Citrus Exp. Sta.
	33-58-32	117-35-38	660	10.29	5100	Chino-Imbach
	33-58-43	117-22-29	875	11.65	4103	Riverside
	33-59-52	117-40-50	670	10.39	4740	Chino-S.C.E. Substation
	34-01-34	117-46-06	820	11.46*	1101	Pomona-Rivera
	34-03-17	117-45-02	876	12.36*	1101	Pomona Fire Dept.
	34-03-22	117-19-08	940	12.61	4740	Colton-S.C.E. Substation
	34-03-41	117-41-16	965	11.54	5100	Monte Vista F. S.

*Partially estimated.

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			Y-01 Santa Ana River Hydro Unit (continued)			
Y-01.B	34-04-05	117-35-25	975	11.97	4731	Guasti Wine Co.
	34-05-45	117-42-57	1,180	13.12	1101	Claremont F. S.
	34-05-48	117-42-33	1,185	13.21	4004	Claremont-Pomona College
	34-06-03	117-26-04	1,279	14.33	5100	Fontana-Herald News
	34-06-06	117-26-09	1,230	13.74	4706	Fontana-Union Water Co.
	34-06-28	117-25-36	1,325	14.32	5100	Fontana B.B. Co.
	34-07-08	117-40-45	1,503	14.70*	1101	Upland-Cadnum
	34-07-22	117-43-11	1,403	14.16	1101	Claremont-Indian Hills
	34-07-57	117-31-24	1,395	14.12	5100	Etwanda S.F.
	34-08-23	117-40-35	1,830	15.61	4004	Upland 3N
	34-09-20	117-40-55	2,090	16.97	1101	San Antonio Spr. Grds.
	34-09-24	117-40-20	2,120	11.20	1101	San Antonio Dam
	32-12-50	117-40-10	3,200	23.76	1101	San Antonio Cn.-Sierra P.H.
Y-01.C	33-42-39	117-31-59	5,660	25.25	5100	Santiago Peak
	33-50-28	117-21-30	1,540	9.38	4103	Cajalco No. 2
	33-50-35	117-26-47	1,375	8.95	4103	Lake Matthews No. 1
Y-01.D	33-59-43	117-13-55	1,880	14.45	4103	Reche Canyon-Atopa Ranch
	34-04-00	117-19-23	980	13.48	5100	Colton Fire Dept.
	34-06-24	117-21-50	1,246	13.14	5100	Rialto
	34-07-26	117-20-53	1,225	14.12	3200	Lytle Cr.-S.B.W.D. Plant
	34-09-20	117-23-46	1,590	15.77	4740	Fontana Powerhouse
	34-12-07	117-27-00	2,225	25.11	4740	Lytle Cr. P.H.
	34-12-14	117-26-45	2,250	24.53	4004	Lytle Cr. P.H. No. 1
	34-12-16	117-26-57	2,300	23.70	4706	Lytle Cr. F.U.W. Intake
	34-13-57	117-23-52	2,720	23.37	4004	Lytle Cr. R. S.
	34-14-14	117-29-28	2,800	26.42	4740	Lytle Cr. S.C.E. Intake
Y-01.E	34-02-00	117-02-12	2,810	11.12	5100	Yucaipa F.S.
	34-03-03	117-11-28	1,360	11.84	4004	Redlands
	34-04-02	117-03-02	1,650	15.62	4730	Mentone-Crafton Orange Co.
	34-04-15	117-07-15	1,765	11.75	5100	Mentone F.C.S.
	34-05-16	117-02-19	2,965	21.31	4004	Mill Cr. No. 2
	34-06-09	117-17-27	1,030	11.68	3200	Hanford Plant S.B.W.D.
	34-06-47	117-10-07	1,370	10.66	4732	E. Highland-Gold Buckle
	34-07-17	117-09-58	1,525	15.88	5100	E. Highland-Orange Co.
	34-07-42	117-16-05	1,125	14.49*	4004	San Bernardino Hosp.
	34-08-15	117-12-30	1,370	16.04	5100	Patton S.B.
	34-08-46	117-03-26	2,765	22.51	4004	Santa Ana River P.H. No. 1
	34-10-21	117-18-44	1,415	17.14	3200	Newmark Res.
	34-12-06	117-19-58	1,900	20.11	3200	Devil Cn.
	34-12-16	117-06-05	6,000	21.19	5100	Running Springs
Y-01.F	33-55-39	116-58-47	2,580	17.05	4004	Beaumont
Y-01.G	34-14-26	116-58-34	6,815	30.77	4004	Big Bear Lake Dam

*Partially estimated.

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
		Y-02 San Jacinto Valley Hydro Unit				
Y-02.B	33-47-15	116-58-06	1,550	12.05	4004	San Jacinto
	33-55-39	116-58-47	2,580	17.05	4004	Beaumont
	33-55-48	116-57-01	2,600	16.11	4103	Beaumont S.F. Sta.
Y-02.C	33-40-06	117-19-51	1,300	9.93	4004	Elsinore

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP IN INCHES	AGENCY	STATION NAME
SAN DIEGO DRAINAGE PROVINCE (Z)						
			Z-01 San Juan Hydro Unit			
Z-01.A	33-32-48	117-46-53	56	9.91	4004	Laguna Beach
	33-36-26	117-42-07	400	9.95	5102	El Toro-Moulton
Z-01.B	33-27-56	117-41-12	20	10.42	5102	Capistrano Beach Auto.
	33-30-42	117-38-29	150	11.54	5102	San Juan Capistrano
	33-30-44	117-39-58	150	11.09	5102	San Juan Cap. Substa.
	33-42-39	117-31-59	5,660	25.25	5102	Santiago Peak
	33-44-55	117-38-27	1,275	16.73	5102	Silverado Cn. Holtz
Z-01.C	33-25-45	117-36-52	135	11.50	5102	San Clemente
			Z-02 Santa Margarita Hydro Unit			
Z-02.A	33-13-00	117-23-43	60	9.29	4004	Oceanside-Pendleton
Z-02.G	33-33-18	116-39-52	3,900	15.13	4004	Anza
			Z-03 San Luis Rey Hydro Unit			
Z-03.A	33-15-32	117-01-26	1,615	13.00	4004	Valley Center 3NE
Z-03.B	33-14-18	116-45-40	2,700	25.49	4004	Henshaw Dam
Z-03.C	33-17-06	116-38-10	3,180	15.31	4004	Warner Springs
	33-20-42	116-50-42	5,560	27.46	4004	Palomar Mtn. Observ.
			Z-04 Carlsbad Hydro Unit			
Z-04.A	33-11-38	117-22-37	67	11.65	4002	Oceanside No. 4
Z-04.E	33-03-45	117-15-15	100	8.40	4002	Scott Ranch
Z-04.F	33-01-12	117-12-06	240	9.61	4002	Rancho Santa Fe
			Z-05 San Dieguito Hydro Unit			
Z-05.A	32-57-17	117-15-37	225	8.44	4002	Del Mar
	32-59-06	117-15-10	200	7.59	4004	Lockwood Mesa
	33-01-12	117-12-06	240	9.61	4002	Rancho Santa Fe

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			Z-05 San Dieguito Hydro Unit (continued)			
Z-05.C	33-10-12	116-59-47	1,520	14.97	4002	Lake Wohlford
Z-05.D	33-03-41	116-50-53	1,470	14.56	4004	Ramona-Spaulding
Z-05.E	33-06-30	116-40-27	2,984	25.59	4002	Santa Ysabel Store
	33-12-16	116-45-43	3,600	28.67	4002	Holdredge Ranch
			Z-06 Penasquito Hydro Unit			
Z-06.A	32-59-06	117-15-10	200	7.59	4004	Lockwood Mesa
Z-06.B	32-57-00	117-03-48	440	11.40*	4004	Poway Valley
			Z-07 San Diego Hydro Unit			
Z-07.A	32-46-51	117-02-38	535	10.03	4002	Murray Dam
	32-51-56	116-53-39	450	13.03	4004	Lakeside 2ENE
	32-53-09	116-48-40	600	13.37	4004	El Capitan Dam
Z-07.D	32-59-20	116-35-12	4,650	37.92	4004	Cuyamaca
	33-05-34	116-38-39	3,655	23.17	4004	Julian Wynola
	33-06-30	116-40-27	2,984	25.59	4002	Santa Ysabel Store
			Z-08 Coronado Hydro Unit			
Z-08.A	32-40-22	117-14-27	410	8.26	4004	Cabrillo N. M.
Z-08.B	32-43-59	117-10-32	19	7.05	4004	San Diego W.B. A.P.
	32-46-12	117-00-44	528	11.28	4004	La Mesa
Z-08.C	32-40-04	117-06-42	15	6.70	4002	National City
			Z-09 Sweetwater Hydro Unit			
Z-09.A	32-37-57	117-05-39	25	8.28	4002	Chula Vista No. 2
	32-39-34	117-01-56	105	9.09	4004	Bonita
	32-41-33	117-00-31	300	9.59*	4004	Sweetwater Dam
	32-46-12	117-00-44	528	11.28	4004	La Mesa
Z-09.B	32-46-52	116-47-38	1,400	15.76*	4002	Lake Loveland
Z-09.C	32-51-31	116-37-39	3,550	25.52	4004	Descanso R. S.

*Partially estimated.

TABLE A-3

PRECIPITATION AT SOUTHERN CALIFORNIA STATIONS JULY 1963 TO JUNE 1964

HYDRO SUBUNIT	LATITUDE	LONGITUDE	ELEV. IN FEET	PRECIP. IN INCHES	AGENCY	STATION NAME
			Z-10 Otay Hydro Unit			
Z-10.B	32-36-03	117-05-32	9	8.37	4004	Chula Vista
			Z-11 Tia Juana Hydro Unit			
Z-11.B	32-40-49	116-40-21	1,623	16.07	4004	Barrett Dam
Z-11.H	32-39-47	116-20-28	3,250	11.96	4004	Boulevard

APPENDIX B

SURFACE WATER FLOW

Introduction

Runoff in Southern California streams is generally responsive to the amount and intensity of precipitation. The estimated unimpaired runoff (runoff unaffected by the works of man) for selected stations representative of conditions in Southern California is presented in Table B-1, together with a comparison with the mean for the 53-year period, 1894-95 through 1946-47. Estimated or measured maximum and minimum flows for each station during the period of record are also given.

Historical unimpaired runoff at four selected stations and the accumulated deviation from the mean seasonal unimpaired runoff are charted on: Figure B-1 for Huasna River near Arroyo Grande; Figure B-2 for Arroyo Seco near Pasadena; Figure B-3 for Santa Ysabel Creek at Sutherland Dam; and Figure B-4 for Big Rock Creek near Valyermo.

The amount of water in storage on the first day of each month of the 1964 water year in selected reservoirs in or supplying water to Southern California is presented in Table B-2.

Data for the 1963-64 water year deliveries of Colorado River water to each of the coastal counties are presented in Table B-3. Table B-4 gives quantities of water diverted from the Colorado River for use in California by each principal agency during the 1964 calendar year. A historical record of net diversions of Colorado River water to California from calendar years 1935 through 1964 is shown graphically on Figure B-5. Figure B-6 presents historical importation of water to coastal Southern California.

The extent of stream flow data collection activities by the Department of Water Resources in Southern California is limited to the

construction, operation, and maintenance of stream-gaging stations in the vicinity of the State Water Project located on Castaic Creek, Elizabeth Lake Canyon Creek, and tributaries to the West Fork of the Mojave River. The daily mean discharges at these stream-gaging stations are presented in Table B-5.

Measurement Techniques

The streamflow data reported in the daily discharge tables are derived through the use of mechanical, arithmetical, and empirical methods. For each stream-gaging station, a stage-discharge relationship, or rating, curve has been developed. The rating gives the flow in cubic feet per second for each gage height at the station. The gage height is usually measured by an automatic water stage recorder.

The data presented in the daily mean discharge tables are affected by inaccuracies in the procedures and equipment. The following is a listing of significant figures used to establish limits of accuracy for reporting the streamflow data:

1. Daily flows -- cubic feet per second
   - 0.0 - 9.9 -- tenths
   - 10 - 99 -- two significant figures
   - 100 - up -- three significant figures
2. Means -- cubic feet per second
   - 0.0 - 99.9 -- tenths
   - 100 - 999 -- three significant figures
   - 1,000 - above -- four significant figures

The water year totals are reported to a maximum of four significant figures.

Coding

Numerical systems are used for identifying surface water measurement stations. A six-digit number based on a hydrologic area numbering concept is used to identify these stations. The first digit is a letter designating the hydrographic area; the second digit is a number indicating the river basin; the third, a number designating the reach of the stream; and the last three digits, numbers in sequence which are assigned to the stations. These last three numbers start at the downstream end of the reach and increase in size in the upstream direction.

DATA

SURFACE WATER FLOW

TABLE B-1

ESTIMATED 1963-64 SEASONAL UNIMPAIRED RUNOFF AT SELECTED STATIONS IN SOUTHERN CALIFORNIA

In acre-feet

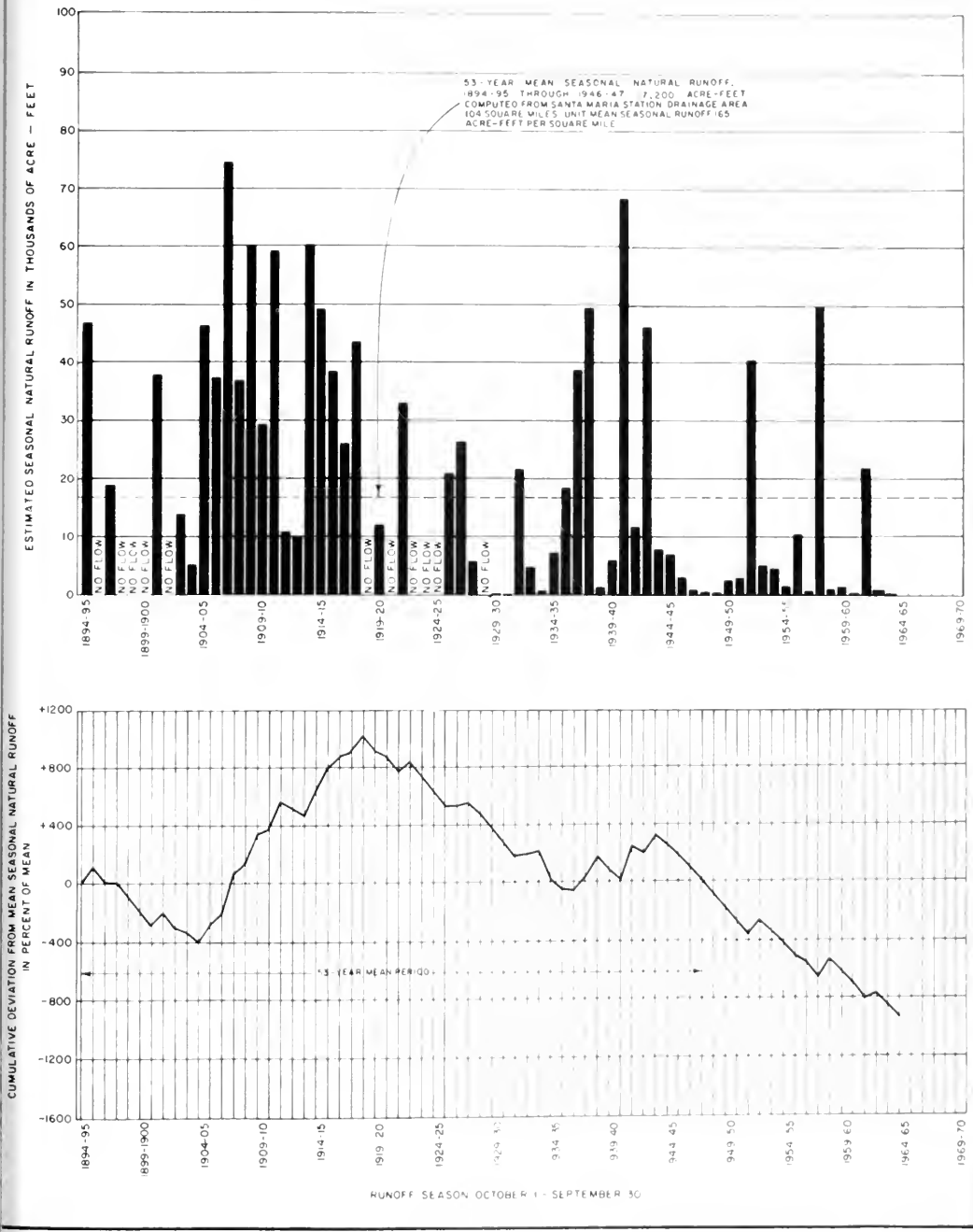
Station	Period of record	1963-64	53-year mean[a]	Percent of mean	Maximum[b]		Minimum[b]	
					Season	Quantity	Season	Quantity
Central Coastal Drainage Province								
Arroyo Grande at Arroyo Grande	1939 to date	2,320	23,900	10	1906-07	76,200	1930-31	800
Huasna River near Arroyo Grande	1959 to date	200	17,200[d]	1	1906-07	64,730[d]	[e]	0[d]
Los Angeles Drainage Province								
Sespe Creek near Fillmore	1911-13 1928 to date	13,000	93,900	15	1940-41	376,000	1950-51	3,520
Arroyo Seco near Pasadena	1910 to date	1,340	7,290	19	1921-22	25,400	1948-49	100
Santa Anita Creek near Sierra Madre	1910 to date	1,100	4,920	22	1942-43	16,000	1948-49	210
San Gabriel River near Azusa	1894 to date	24,000	122,000	20	1921-22	410,000	1960-61	1,250
Lahontan Drainage Province								
Owens River below Long Valley	1910 to date	103,000	168,500	61	1906-07	292,000	1930-31	73,010
Big Rock Creek near Valyermo	1913-37 1938 to date	2,340	15,000	15	1921-22	39,000	1950-51	1,300
Deep Creek near Hesperia	1904-22 1929 to date	10,170	47,100[f]	22	1921-22	177,000[g]	1960-61	4,240[g]
Colorado River Basin Drainage Province								
Colorado River at Lee's Ferry	1911 to date	9,312,000	11,800,000[en]	96	1916-17	21,800,000[g]	1933-34	4,377,000[g]
Colorado River below Hoover Dam	1933 to date	8,234,000	11,168,000[ej]	74	1941-42	17,880,000[g]	1933-34	5,958,000[g]

ESTIMATED 1963-64 SEASONAL UNIMPAIRED RUNOFF AT
SELECTED STATIONS IN SOUTHERN CALIFORNIA
(continued)

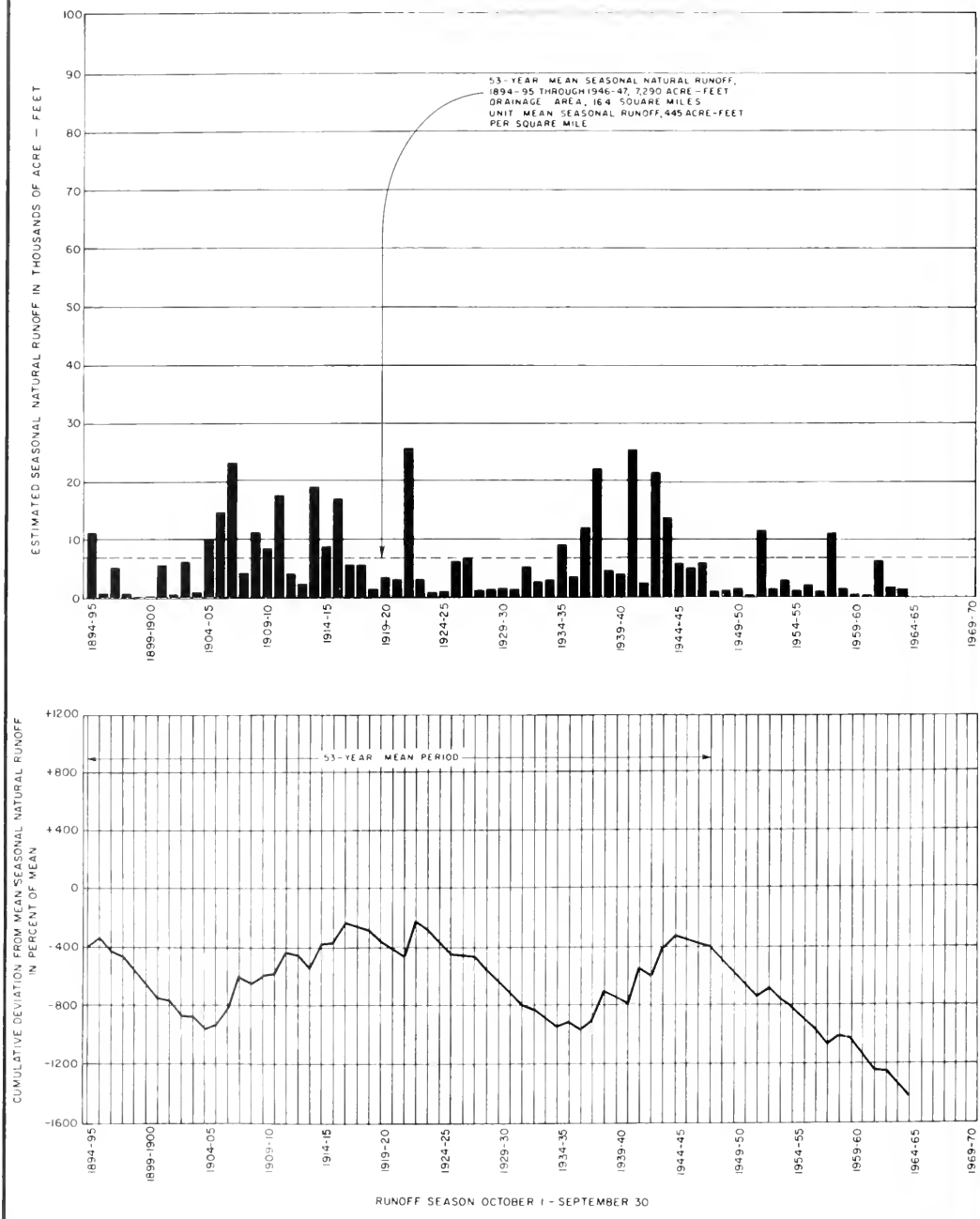
In acre-feet

Station	Period of record	1963-64	53-year mean[a]	Percent of mean	Maximum[b]		Minimum[b]	
					Season	Quantity	Season	Quantity
Colorado River Basin Drainage Province (continued)								
Colorado River at Yuma	1878 to date	974,600	5,646,000[cj]	17	1908-09	26,070,000[cg]	1960-61	707,270[cg]
Palm Canyon Creek near Palm Springs	1930-41 1947 to date	340	3,580[k]	9	1936-37	18,980[g]	1955-56	0.2[g]
Santa Ana Drainage Province								
Cucamonga Creek near Upland	1928 to date	1,490	6,190	24	1921-22	20,900	1898-99	930
Santa Ana River near Mentone	1896 to date	17,680	70,600	25	1915-16	293,000	1898-99	16,500
San Diego Drainage Province								
Murrieta Creek at Temecula	1930 to date	280	8,670	3	1915-16	60,300	1960-61	320
Santa Ysabel Creek at Sutherland Dam	1936 to date	500	15,200	3	1915-16	95,200	1960-61	130
Cottonwood Creek at Morena Dam	1936 to date	180	12,400	1	1915-16	75,300	1960-61	70

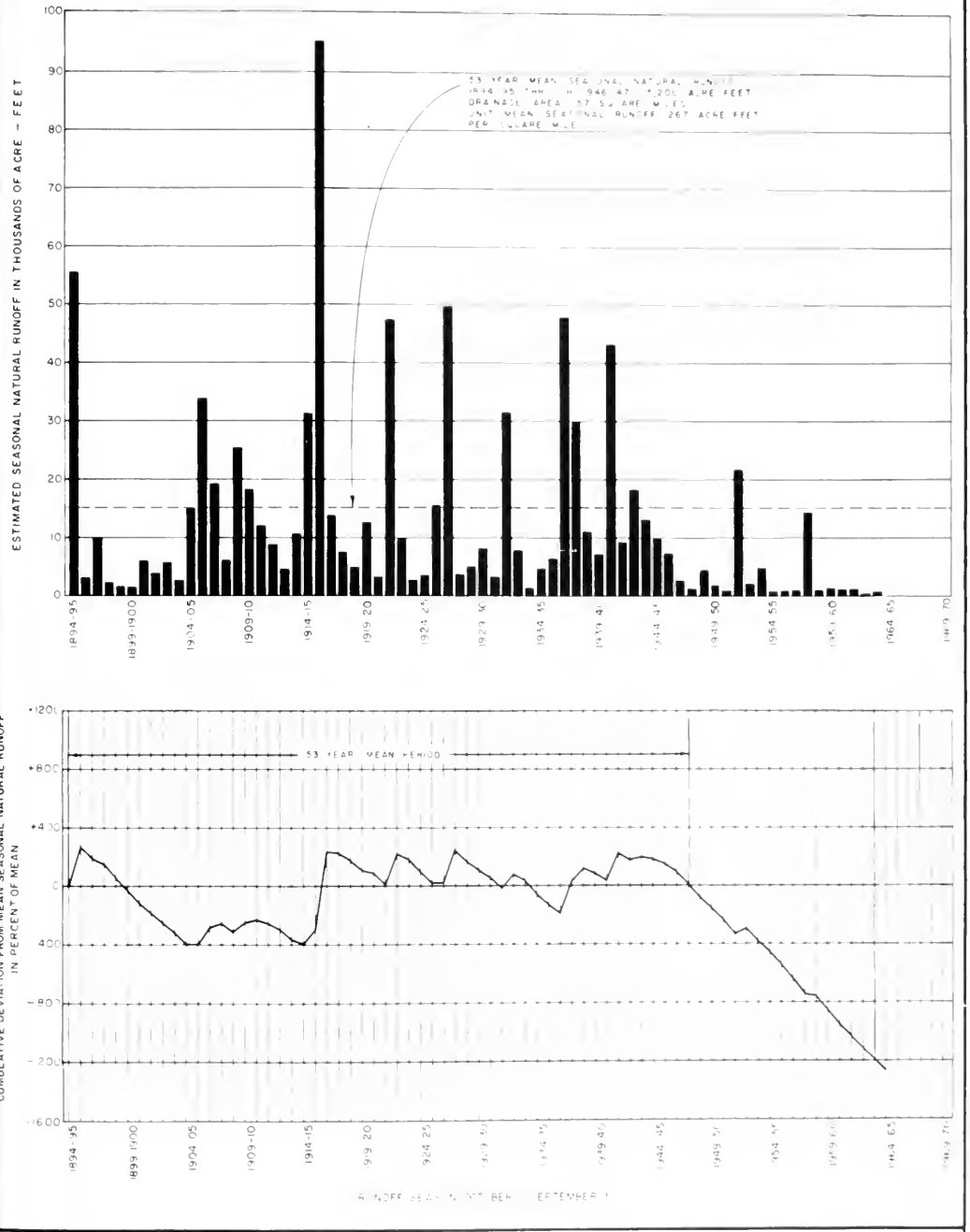
a. Mean for period 1894-95 through 1946-47, except as noted.
b. Indicated maxima and minima are recorded or estimated values for period 1894-95 to date except as noted.
c. Measured runoff, unadjusted for upstream development.
d. 53-year mean computed from Santa Maria Station.
e. Zero flow reported for eleven seasons.
f. Average for period 1920-21 through 1949-50.
g. Indicated maxima and minima are recorded or estimated values for a given period of record.
h. Average for period 1922-23 through 1955-56.
j. Average for period 1936-37 through 1955-56.
k. Average for period 1930-31 through 1940-41 and 1947-48 through 1957-58.



REPRESENTATIVE RUNOFF CHARACTERISTICS
HUASNA RIVER NEAR ARROYO GRANDE

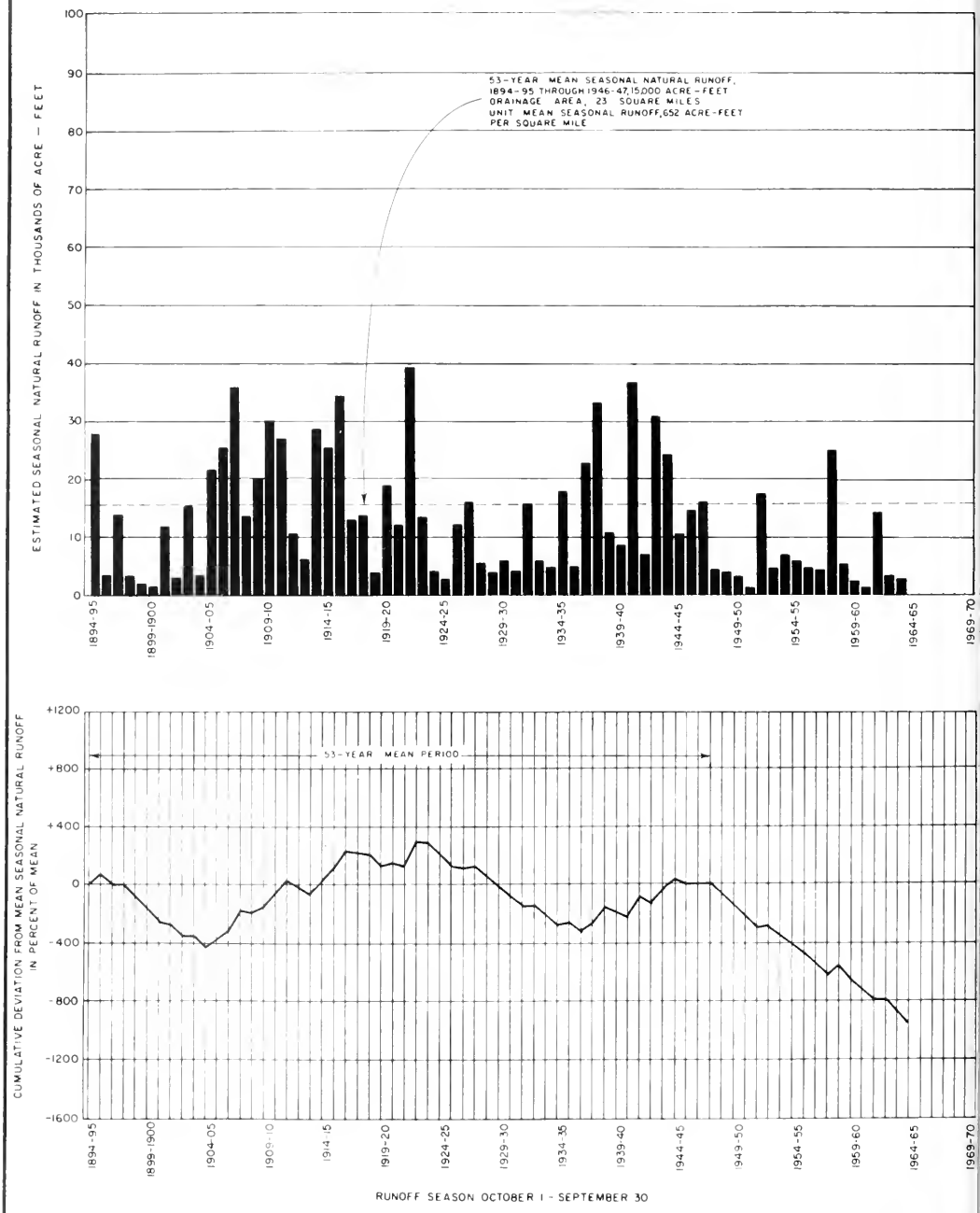


REPRESENTATIVE RUNOFF CHARACTERISTICS
ARROYO SECO NEAR PASADENA



REPRESENTATIVE RUNOFF CHARACTERISTICS
SANTA YSABEL CREEK AT SUTHERLAND DAM

DEPARTMENT OF WATER RESOURCES – SOUTHERN CALIFORNIA DISTRICT



REPRESENTATIVE RUNOFF CHARACTERISTICS
BIG ROCK CREEK NEAR VALYERMO

DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1966

TABLE B-2

MONTHLY WATER CONTENT OF SELECTED SURFACE RESERVOIRS
IN OR SUPPLYING WATER TO SOUTHERN CALIFORNIA
OCTOBER 1, 1963 TO SEPTEMBER 1, 1964

Drainage province and stream	Reservoir	Capacity, in acre-feet	Water in storage on first day of month, in acre-feet											
			October	November	December	January	February	March	April	May	June	July	August	September
Central Coastal														
Old Creek	Whale Rock	40,000	11,690	11,650	12,003	12,003	12,060	12,060	12,088	11,946	11,413	10,838	10,437	10,173
Santa Ynez River	Gibraltar	14,000	8,826	8,308	8,795	8,369	7,444	7,444	7,144	8,187	7,992	7,593	7,194	6,783
	Cachuma	204,900	171,736	170,011	169,604	168,574	167,488	166,063	164,186	162,217	158,666	155,137	150,135	145,237
Santa Maria	Twitchell	239,000	1,826	1,775	1,815	1,849	0	0	0	0	0	0	0	0
Los Angeles														
Coyote Creek	Casitas	248,000	48,496	47,049	46,896	46,364	46,222	45,796	45,828	45,471	44,680	44,078	42,884	41,588
Piru Creek	Lake Piru	100,000	12,648	12,200	12,586	12,483	13,089	13,325	13,132	7,344	7,618	7,419	7,052	6,686
Bouquet Creek	Bouquet Canyon	36,510	27,514	22,127	21,374	21,572	22,076	32,464	35,570	34,826	34,950	34,091	33,184	30,204
Lahontan														
Rush Creek	Grant Lake	47,530	46,544	41,319	43,853	43,533	41,006	39,146	34,534	30,878	32,687	37,116	37,216	32,976
Owens River	Lake Crowley	183,470	170,595	160,727	152,625	146,144	142,064	140,718	154,508	151,222	149,828	151,689	149,364	142,514
Rose Valley	Haiwee (South)	58,530	33,675	44,075	50,040	53,419	54,109	53,419	47,093	44,702	42,835	40,110	28,596	18,340
Colorado River Basin														
Colorado River	Lake Mead	27,207,000	17,371,000	16,910,300	16,518,000	16,012,000	15,448,000	15,090,000	14,609,000	14,564,000	14,140,000	13,446,000	12,599,000	12,098,800
	Lake Mojave	1,810,000	1,406,400	1,381,200	1,393,000	1,551,000	1,696,000	1,674,100	1,663,000	1,715,200	1,790,200	1,655,200	1,537,900	1,418,000
	Lake Havasu	619,000	540,900	546,300	542,700	531,900	547,200	536,400	546,300	597,400	612,200	580,000	573,400	558,200
Santa Ana														
Bear Creek	Bear Valley	72,170	2,810	2,631	2,751	2,810	2,989	3,049	3,920	6,212	6,784	6,594	5,511	4,300
San Jacinto River	Lake Hemet	13,400	518	503	667	735	756	976	1,182	1,507	1,663	1,715	1,594	1,252
	Railroad Canyon*	14,700	1,910	1,616	1,537	1,381	1,220	2,756	856	5,288	4,756	4,004	2,951	2,159
Cajalco Creek	Lake Mathews*	182,000	170,779	167,353	177,295	169,340	176,886	167,142	169,739	159,223	150,512	143,940	122,270	112,522
Santiago Creek	Santiago*	25,000	2,870	2,795	2,795	2,820	3,105	5,400	6,915	6,940	6,870	6,980	6,960	6,525
San Diego														
Temecula Creek	Vail	49,500	1,585	1,569	1,582	1,589	1,627	1,648	1,774	1,812	1,801	1,741	1,659	1,570
San Luis Rey River	Lake Henshaw	194,320	4,990	5,370	6,088	6,568	6,984	7,145	7,064	6,967	6,800	6,341	5,794	5,289
Santa Ysabel Creek	Sutherland	29,680	2,948	2,895	2,898	2,874	2,891	2,875	3,020	3,175	3,189	3,116	3,019	2,915
San Dieguito River	Lake Hodges*	33,550	3,032	3,529	3,967	3,460	3,054	2,463	2,656	2,495	2,471	2,356	2,263	2,382
San Vicente Creek	San Vicente Lake*	90,230	57,856	58,976	64,879	67,765	68,467	65,979	67,558	65,288	65,102	66,598	64,360	61,398
Boulder Creek	Cuyamaca	11,600	0	0	1	1	24	24	321	574	0	0	0	0
San Diego River	Chet Harritt*	10,500	4,423	4,434	4,477	4,638	4,618	4,596	4,585	4,542	4,477	4,434	4,213	4,151
	El Capitan Lake*	112,810	8,336	9,823	10,130	9,837	8,460	8,438	8,504	8,774	9,608	9,461	9,226	9,010
Sweetwater River	Lake Loveland	25,250	1,417	1,418	1,424	1,415	1,426	1,420	1,435	1,440	1,489	1,463	1,430	1,402
	Sweetwater (Main)*	27,150	2,502	2,458	2,519	2,522	2,267	2,246	2,490	2,393	2,545	2,610	2,526	2,610
Otay River	Lower Otay Lake*	56,520	3,185	3,101	2,959	2,939	2,939	2,899	2,899	2,859	2,781	2,723	2,646	2,554
Cottonwood Creek	Morena	50,210	342	342	342	337	352	357	390	400	384	352	312	279
	Barrett	44,750	1,246	1,238	1,238	1,231	1,246	1,238	1,262	1,255	1,231	1,191	1,130	1,094

*Includes Imported Colorado River Water.

TABLE B-3

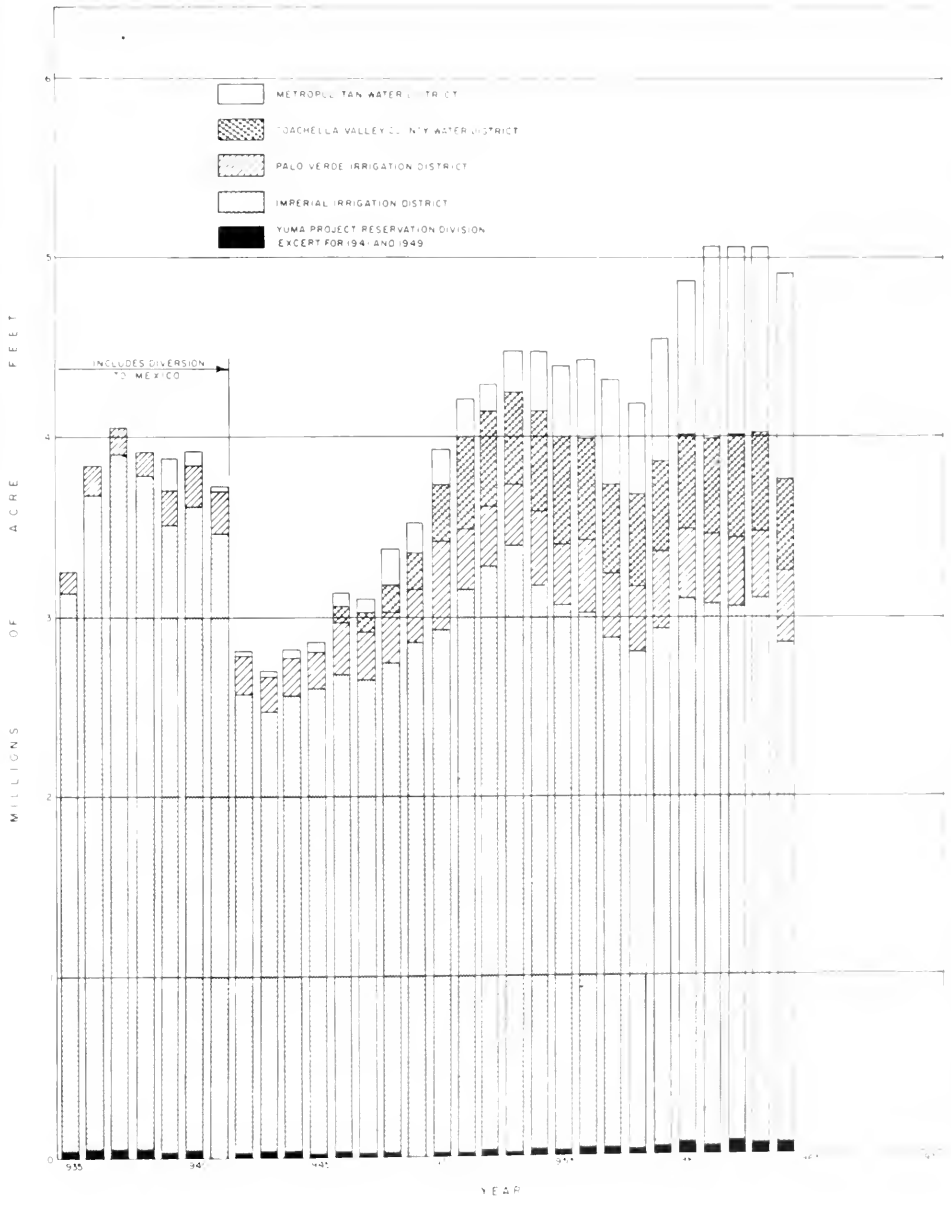
COLORADO RIVER WATER IMPORTED TO
COUNTIES IN COASTAL SOUTHERN CALIFORNIA
DURING 1963-64 WATER YEAR

County	Seasonal import, in acre-feet
Los Angeles County	465,395
San Diego County	230,912
Orange County	306,694
Riverside County	82,656
San Bernardino County	16,667
Ventura County	6,955
TOTAL	1,109,279

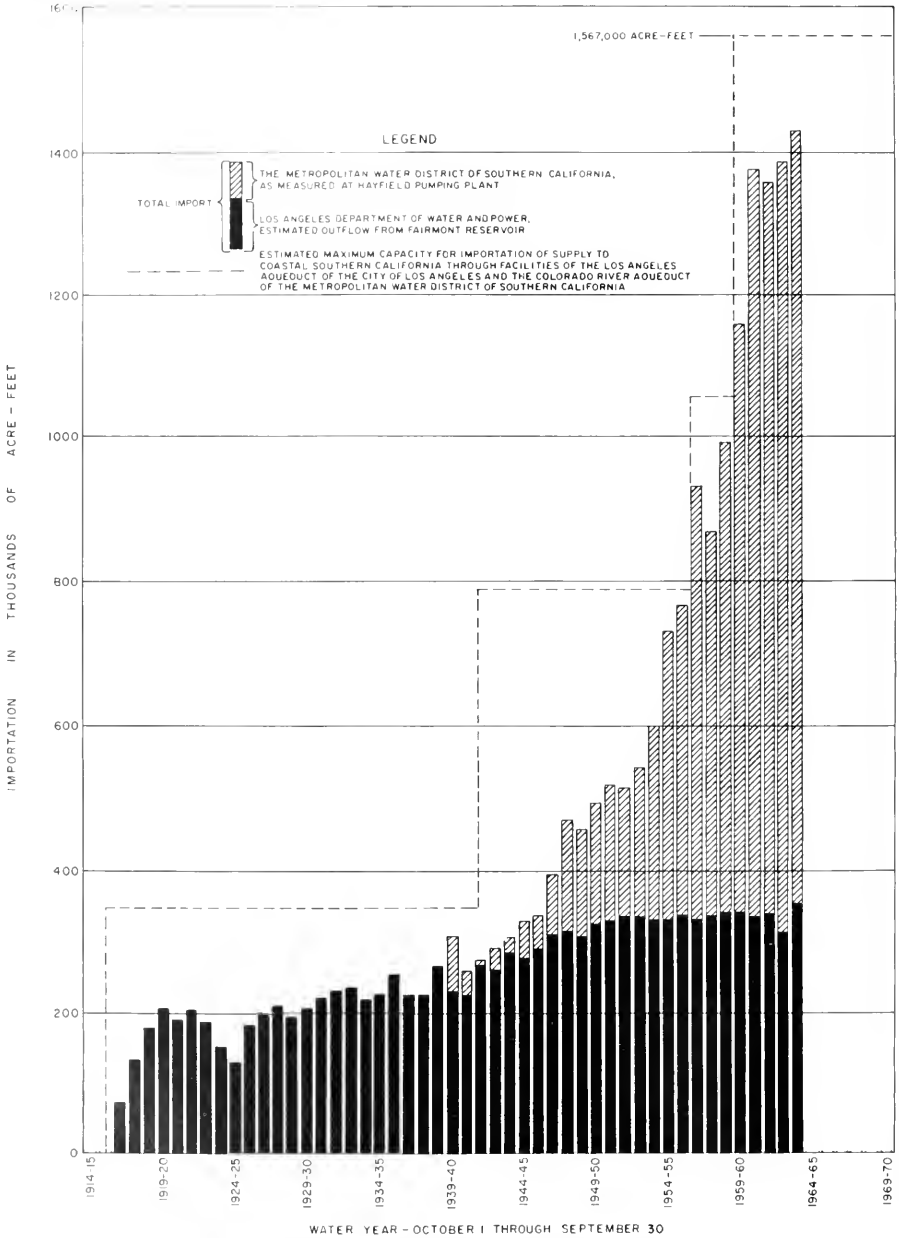
TABLE B-4

QUANTITIES OF WATER DIVERTED FROM
THE COLORADO RIVER FOR USE IN CALIFORNIA
DURING 1964

Agency	Diversion, in acre-feet
The Metropolitan Water District of Southern California	1,129,400
Palo Verde Irrigation District	400,740
Imperial Irrigation District	2,807,670
Coachella Valley County Water District	511,080
Yuma Project (Reservation Division)	49,510
TOTAL	4,898,400



NET DIVERSIONS OF WATER TO CALIFORNIA
FROM THE COLORADO RIVER



HISTORICAL IMPORTATIONS OF WATER TO COASTAL SOUTHERN CALIFORNIA

DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1966

TABLE B-5

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO	STATION NAME
1964	9422[illegible]	WEST FORK OF THE MOJAVE RIVER BELOW [illegible] AT [illegible]

DAY	OCT.	NOV.	DEC.	JAN.	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.0	[illegible]	0.2	0.3	0.3	[illegible]	10[illegible] *	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1
2	0.0	[illegible]	0.3	0.4	[illegible]	[illegible]	73 *	[illegible]	[illegible]	[illegible]	0.[illegible]	[illegible]	2
3	*	[illegible]	0.3	[illegible]	[illegible]	[illegible]	37 *	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3
4	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27	*	[illegible]	*	[illegible]	[illegible]	4
5	*	[illegible]	0.3	[illegible]	[illegible]	[illegible]	23	[illegible]	[illegible]	*	*	[illegible]	5
6	[illegible]	[illegible]	0.3	[illegible]	[illegible]	[illegible]	23	[illegible]	[illegible]	*	0.0	0.0	6
7	[illegible]	[illegible]	[illegible]	[illegible]	0.3	0.3	18	[illegible]	[illegible]	*	[illegible]	[illegible]	7
8	[illegible]	[illegible]	0.3	[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8
9	[illegible]	[illegible]	0.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9
10	[illegible]	[illegible]	0.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	*	*	[illegible]	10
11	*	[illegible]	0.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	*	*	*	11
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	*	*	0.[illegible]	12
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	*	[illegible]	[illegible]	13
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19
20	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MEAN
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MAX
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MIN
AC FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AC FT

E — ESTIMATED
NR — NO RECORD
* — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY
= — E AND R

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE FEET
2.1	174	4.65	4	1	12[illegible]	[illegible]		[illegible]	1	0000	1[illegible]

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T & R S.B.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			CFS	GAGE HT	DATE			FROM	TO		
34° 18.4'	117° 18.4'	N632 3N 4W	2750	5.90	2/12/62	Jan 61-Date	Jan 61-Date	1/61 2/62	1/62	2.80 3.40	U.S.G.S. U.S.G.S.

Station is located 2 miles NE of Cedar Springs on left bank of West Fork of Mojave River at State Highway 118 Crossing.

Drainage area is 19.8 square miles.

TABLE B-5

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO	STATION NAME
1964	V92250	E.F. OF WEST FORK OF THE MOJAVE RIVER ABOVE CEDAR SPRINGS

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	0.0	2.8	0.7	0.5	0.9	0.6	37 *	4.4	0.8	0.1	0.0	0.0	1
2	0.1	0.4	0.7	0.5	0.9	0.9	27 *	4.4	1.8	0.1	0.0	0.0	2
3	0.0	0.4	0.7	0.5	0.8	0.7	16 *	4.6	1.8	0.1	0.0	0.0	3
4	0.1	0.4	0.8	0.5	0.8	0.6	10	4.9	0.8	0.1	0.0	0.0	4
5	0.1	0.4	0.8	0.5	0.8	0.5	8.5	5.2	1.0	0.1	0.0*	0.0	5
6	0.1	0.8	0.7	0.4	0.8	0.6	7.6	5.8	1.7	0.1	0.0	0.0	6
7	0.1	0.7	0.7	0.5	0.8	0.6	6.8*	6.6*	1.7	0.1	0.0*	0.0	7
8	0.1	0.5	0.7	0.4	0.7	0.6	6.6	6.2	1.8	0.1	0.0	0.0*	8
9	0.1	0.4	0.9	0.4	0.7	0.5	6.2	5.3	1.2	5.7	0.0	0.0	9
10	0.1	0.4	1.9	0.5	0.6	0.5	6.1	5.1	0.7	6.5	0.0	0.0	10
11	0.1	0.4	0.7	0.4	0.7	0.5	6.1	4.5	0.7	6.7	0.0	0.0	11
12	0.1	0.4	0.7	0.4	0.8	0.6	5.6	4.2	0.6	6.7	0.0	0.0	12
13	0.1	0.4	0.7	0.4	0.7	0.6	5.1	3.5	0.5	3.6	0.0	0.0	13
14	0.1	0.4	0.6	0.4	0.7	0.6	5.0	3.1	0.5	0.2	0.0	0.0	14
15	0.1	1.1	0.6	0.4	0.6	0.5	4.8	2.8	0.4	0.1	0.0	0.0	15
16	0.3	1.1	0.6	0.4	0.7	0.4	4.5	2.4	0.4	0.1	0.0	1.5	16
17	0.9	0.7	0.6	0.4	0.7	0.4	4.6	2.2	0.3*	0.0	0.0	4.8	17
18	1.1	0.6	0.6	0.4	0.6	0.4	4.6	1.8	0.3	0.0	0.0	5.5	18
19	0.6	0.6	0.6	0.6	0.6	0.4	5.5	1.8*	0.4	0.0	0.0	2.6	19
20	0.4	6.1*	0.6	0.4	0.6	0.4	4.6	1.6	0.4	0.0	0.0	0.0	20
21	0.4	1.9	0.6	5.2*	0.6	0.4	4.6	1.6	0.3	0.0*	0.0	0.0	21
22	0.3	1.4	0.6	4.3	0.6	0.5	4.6	1.4	0.3	0.0	0.0	0.0	22
23	0.3	1.2	0.6	1.1	0.6	0.8	4.6	1.4	0.3	0.0*	0.0	0.0*	23
24	0.3	1.1	0.6	1.2	0.6	0.9	4.9	1.3	0.2	0.0	0.0	0.0	24
25	0.3	1.0	0.8	1.3	0.6	1.0	4.4	1.2	0.2	0.0	0.0	0.0	25
26	0.3	0.9	0.8	1.2	0.6	1.3	4.0	1.2	0.1	0.0	0.0	0.0	26
27	0.3	0.7	0.8	1.1	0.6	1.7	4.2	1.1	0.1	0.0	0.0	0.0	27
28	0.3	0.7	0.8	1.1	0.6	2.3	4.2	1.1	0.1	0.0	0.0	0.0	28
29	1.0	0.7	0.8	1.0	0.7	2.9	4.2	1.1	0.1	0.0	0.0	0.0	29
30	0.3	0.7	0.8	1.0		3.3	4.4	0.9	0.1	0.0	0.0	0.0*	30
31	0.5		0.8	0.9		4.1		0.9		0.0*	0.0*		31
MEAN	0.6	1.0	0.8	0.9	0.7	1.0	7.5	3.1	0.5	1.0	0.0	0.5	MEAN
MAX	6.5	6.1	1.9	5.2	0.9	4.1	37.0	6.8	1.8	6.7	0.0	5.5	MAX.
MIN	0.1	0.4	0.6	0.4	0.6	0.4	4.0	0.9	0.1	0.0	0.0	0.0	MIN
AC FT	35	58	48	55	40	60	449	188	29	64		29	AC FT

E — ESTIMATED
NR — NO RECORD
* — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY
= — E AND R

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT	MAXIMUM MO	MAXIMUM DAY	MAXIMUM TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT	MINIMUM MO	MINIMUM DAY	MINIMUM TIME	TOTAL ACRE FEET
1.4	64.0	3.91	4	1	1100	0.0		10	1	1810	1047

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T & R S.B B.&M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			CFS	GAGE HT	DATE			FROM	TO		
34° 1n.3'	117° 17.5'	SW10 2N 4W	486	4.85	3/31/65	Mar 61-Date	Mar 61-Date	3/61 11/61	10/61	1.90 2.31	U.S.G.S. U.S.G.S.

Station is located 2.2 miles east of Cedar Springs on the right bank of the East Fork of the West Fork of Mojave River.

Drainage area is 11.5 square miles.

TABLE B-5

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO	STATION NAME
1964	[illegible]92300	WEST FORK [illegible] THE MO[illegible] [illegible] SPRING[illegible]

DAY	OCT	NOV.	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	[illegible]	.0*	.0	[illegible]	[illegible]	[illegible]	[illegible]*	[illegible]	[illegible]	[illegible]	0.0	0.0	1
2	[illegible]	.0	.0	0.	[illegible]	.3	8.8*	.8	[illegible]	.0	0.0	0.	2
3	[illegible]	.0	0.	[illegible]	.4	.2	4.5*	.4	[illegible]	[illegible]	[illegible]	0.0	3
4	[illegible]	.0	[illegible]	0.	0.4	.2	3.2	[illegible]	[illegible]	[illegible]	[illegible]	0.	4
5	[illegible]	1.0	0.	[illegible]	.3	[illegible]	0.8	[illegible]	[illegible]	[illegible]	.0*	0.0	5
6	[illegible]	.0	.0	[illegible]	.3	[illegible]	0.4	[illegible]	[illegible]	[illegible]	.0	0.	6
7	[illegible]	.0	0.0	[illegible]	.3	[illegible]	.0	[illegible]	[illegible]	[illegible]	[illegible]*	0.	7
8	[illegible]	.0	0.0	[illegible]	0.3	.2	1.9	.3	[illegible]	[illegible]	0.0	0.*	8
9	[illegible]	.0	0.1	[illegible]	.3	.2	1.9	.4	[illegible]	[illegible]	.0	0.	9
10	[illegible]	0.0	0.1	0.0	0.3	[illegible]	.5	.4	[illegible]	[illegible]	0.0	0.	10
11	[illegible]	.0	.1	[illegible]	.3	.2	1.2	1.	[illegible]	.0	0.0	0.0	11
12	[illegible]	.0	[illegible]	[illegible]	.3	.2	1.2	1.	[illegible]	.0	[illegible]	0.	12
13	[illegible]	.0	[illegible]	0.1	0.2	.2	1.1	1.	[illegible]	.0	0.0	0.0	13
14	[illegible]	.0	.0	.1	0.2	.2	1.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14
15	0.	.0	.0	.1	.2	.2	1.3	.3	[illegible]	.0	.0	0.0	15
16	0.0	0.0	0.0	.1	0.2	.2	1.4	[illegible]	[illegible]	.0	.0	0.	16
17	0.	0.0	0.0	.1	.2	.2	1.3	.8	[illegible]*	.0	0.0	0.0	17
18	0.0	.0	0.0	.1	.2	.2	1.3	[illegible]	[illegible]	.0	0.0	0.0	18
19	0.	.0	0.0	.1	.2	.2	1.2	.5	[illegible]	[illegible]	0.	0.	19
20	0.	[illegible]	0.0	.1	.2	.2	1.2	.5	[illegible]	[illegible]	0.	0.	20
21	[illegible]	.1	.0	.2	.2	[illegible]	1.1	.6	[illegible]	.0	[illegible]	0.0	21
22	[illegible]	.0	[illegible]	1.7	.2	.2	1.1	.6	[illegible]	[illegible]	0.	0.	22
23	[illegible]	.0	0.0	.7	.2	.4	1.1	.6	[illegible]	[illegible]	0.0	0.0*	23
24	[illegible]	.0	0.0	.5	.2	.4	1.1	.6	[illegible]	[illegible]	.0	0.	24
25	[illegible]	.0	[illegible]	.4	.2	.4	1.1	.5	[illegible]	[illegible]	[illegible]	[illegible]	25
26	0.	.0	.0	.4	.2	.5	1.	.5	[illegible]	[illegible]	.0	0.	26
27	0.	.0	.0	.4	0.2	.8	0.9	.5	[illegible]	[illegible]*	0.0	0.0	27
28	0.	.1	0.0	.4	.2	[illegible]	0.8	[illegible]	[illegible]	[illegible]	0.0	0.	28
29	0.	.1	0.0	0.4	0.2	.2	0.8	0.4	.3	.0	0.0	0.0	29
30	[illegible]	.1	0.	.4		.5	1.	.4	.1	[illegible]	0.0	0.0*	30
31	[illegible]		.0	.4		1.9		.3		.0*	0.0*		31
MEAN	[illegible]	.0	.0	.2	0.3	.4	2.1	.8	.2	.0	.0	0.	MEAN
MAX	.0	.2	.1	1.7	0.4	.5	12.0	1.4	.5	.0	0.	0.	MAX
MIN	[illegible]	.0	.0	0.0	.2	.2	0.8	.3	[illegible]	[illegible]	.0	0.	MIN
AC FT		1	1	13	15	25	126	49	11				AC FT

E — ESTIMATED
NR — NO RECORD
* — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY
= — E AND R

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT	MAXIMUM MO	MAXIMUM DAY	MAXIMUM TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT	MINIMUM MO	MINIMUM DAY	MINIMUM TIME	TOTAL ACRE FEET
.3	16.0	4.42	4	1	18[illegible]	0.0		[illegible]	1	[illegible]	240

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. S.B. B. & M.	CFS	GAGE HT	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF DATUM
34° 17.1'	117° [illegible].5'	[illegible]W2 2N 5W	337	[illegible]	2 [illegible] '62	Feb [illegible]-date	Feb [illegible]-date	[illegible]		3.[illegible]	[illegible]

Station is located [illegible] miles west of Cedar Springs on the left bank of the West Fork of Mojave River.

Drainage area is 3.2 square miles.

TABLE B-5

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO	STATION NAME
1964	32330	ELIZABETH LAKE CANYON CREEK ABOVE CASTAIC

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	0.0	0.0	0.0	0.0	0.6	1.0	7.1	1.0	0.0	0.0	0.0	0.0	1
2	0.0	0.0	0.0*	0.0	0.6	1.1	5.3	1.3	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.6	1.1	3.9	1.9	0.0	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.1	0.5	1.0	3.2	2.4	0.0	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.1	0.5	1.1	2.9	2.9	0.0	0.0	0.0	0.0	5
6	0.0	0.0	0.0	0.1	0.5	1.1	2.5	4.1	0.0	0.0	0.0	0.0	6
7	0.0	0.0	0.0	0.5	0.5	5.0	2.0	4.8	0.0	0.0	0.0	0.0	7
8	0.0	0.0	0.0	0.5	0.5	7.1	1.8	3.3	0.0	0.0	0.0	0.0	8
9	0.0	0.0	0.1	0.6	0.5	7.1	1.6	2.4	0.0	0.0	0.0	0.0	9
10	0.0	0.0	0.1	0.6	0.5	6.8	1.4	1.8	0.0	0.0	0.0	0.0	10
11	0.0	0.0	0.1	0.6	0.5	6.8	1.2	1.4	0.0	0.0	0.0	0.0	11
12	0.0	0.0	0.1	0.6	0.5	8.0	1.1	1.2	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.1	0.6	0.5	8.5	0.9	1.1	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.1	0.7	0.5	7.8	0.9	1.1	0.0	0.0	0.0	0.0	14
15	0.0	0.0	0.1	0.8	0.5	7.5	0.8	0.6	0.0	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.7	0.5	7.5	0.8	0.5	0.0	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.6	0.5	7.5	0.8	0.4	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.5	0.5	7.3	0.9	0.3	0.0	0.0	0.0	0.0	18
19	0.0	0.0	0.0	0.1	0.6	7.1	1.1	0.2	0.0	0.0	0.0	0.0	19
20	0.0	0.6*	0.0	0.1	0.8	6.8	1.1	0.1	0.0	0.0	0.0	0.0	20
21	0.0	2.0	0.0	3.8	0.9	8.0	0.9	0.1	0.0	0.0	0.0	0.0	21
22	0.0	0.7	0.1	17	0.9	12	0.9	0.1	0.0	0.0	0.0	0.0	22
23	0.0	0.0	0.1	4.0	1.0	17	1.0	0.1	0.0	0.0	0.0	0.0	23
24	0.0	0.1	0.1	2.9	1.0	17	0.9	0.2	0.0	0.0	0.0	0.0	24
25	0.0	0.1	0.1	2.1	1.0	14	0.6	0.2	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.1	1.6	1.0	13	0.9	0.2	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.1	1.3	1.0	12	0.7	0.1	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	1.1	1.0	12	1.1	0.1	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.9	1.0	11	1.3	0.1	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.8		11	1.1	0.0	0.0	0.0	0.0	0.0	30
31	0.0		0.0	0.7		9.2		0.0		0.0	0.0		31
MEAN	0.0	0.1	0.0	1.4	0.7	7.0	1.7	1.1	0.0	0.0	0.0	0.0	MEAN
MAX	0.0	2.0	0.1	17.0	1.0	17.0	7.1	4.8	0.0	0.0	0.0	0.0	MAX
MIN	0.0	0.0	0.0	0.0	0.5	1.0	0.8	0.0	0.0	0.0	0.0	0.0	MIN
AC FT	7	3	3	80	39	483	100	67					AC FT

E — ESTIMATED
NR — NO RECORD
* — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY
= — E AND R

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE FEET
1.1	44.0	2.99	1	22	0510	0.0		10	1	0000	788

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	14 SEC. T & R S.B.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
34° 33.7'	118° 34.2'	SW34 6N 16W	1410	5.20	2/11/62	Jan 62-Date	Jan 62-Date	1/62	1/63	1.82	Local
								2/63		2.15	Local

Station is located 3.9 miles north of intersection of Castaic Canyon Road and Elizabeth Lake Canyon Road on left bank of stream at Canyon Christian Camp.

Drainage area is 45.7 square miles.

TABLE B-5

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO	STATION NAME
1964	32[illegible]	[illegible]

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30
31	[illegible]		[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]		31
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MEAN
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MAX
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MIN
AC FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AC FT

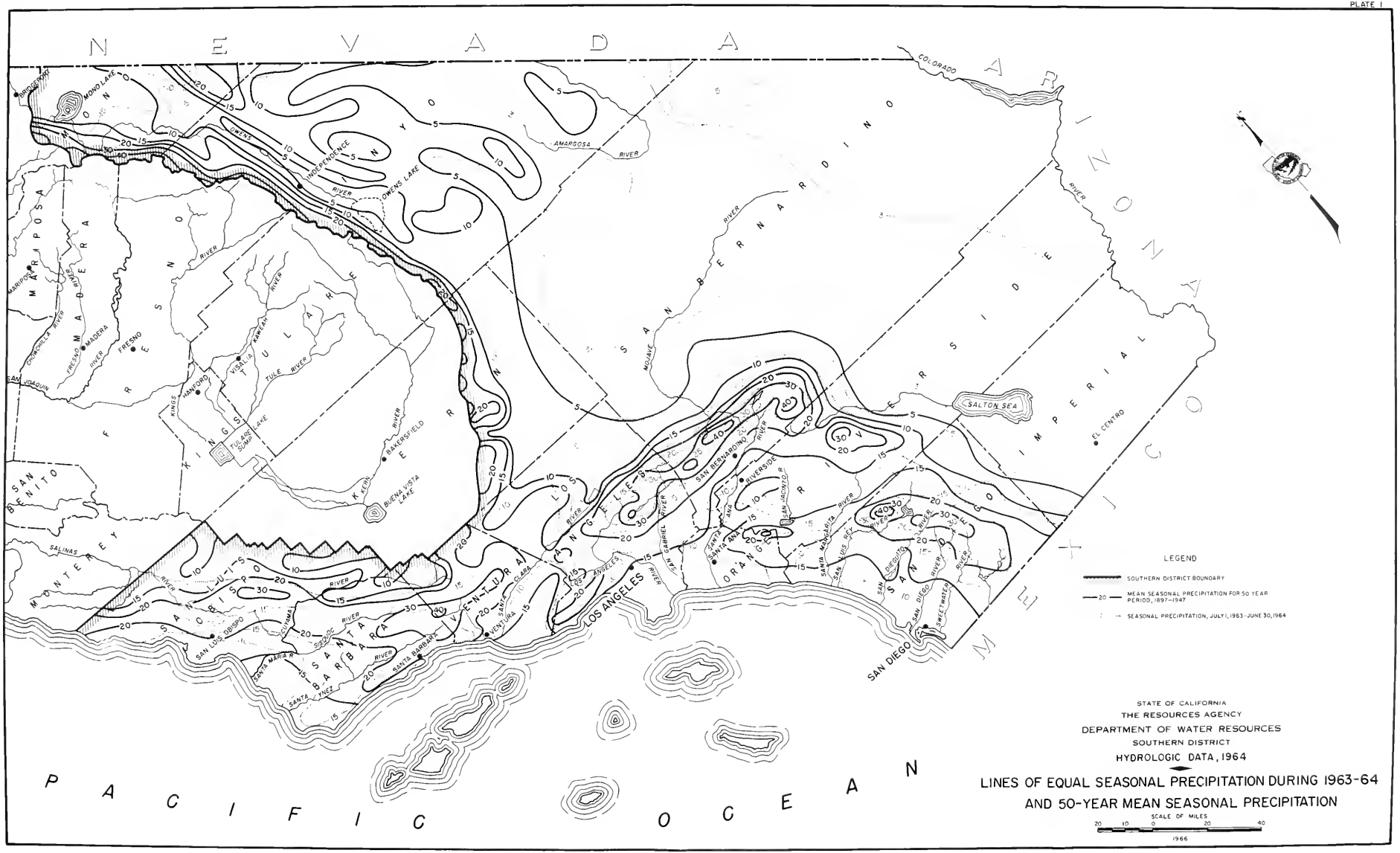
E — ESTIMATED
NR — NO RECORD
• — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY
— E AND R

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE FEET
[illegible]	131	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	130

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T & R S.B.B&M.	CFS	GAGE HT	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF DATUM
34° 36.7	118° 39.8'	NE22 6N 17W	3790	5.35	2/11/62	Jan 62-Date	Jan 62-Date	1/62 3/62 2/63	[illegible] 3 [illegible]	[illegible] 1.9 2.83	Local Local Local

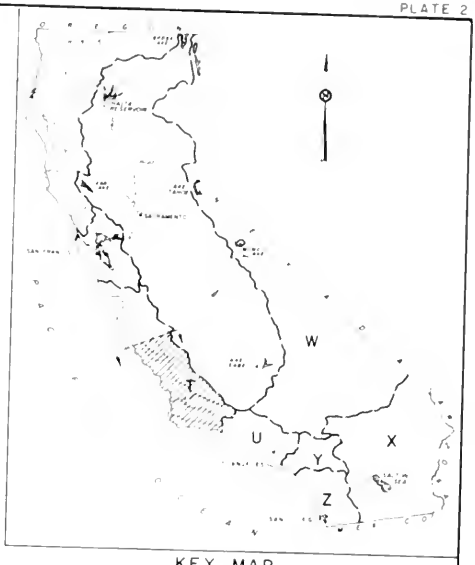
Station is located 6.7 miles west of Elizabeth Lake Canyon Road on Castaic Canyon Road on left bank.

Drainage area is 65.0 square miles.

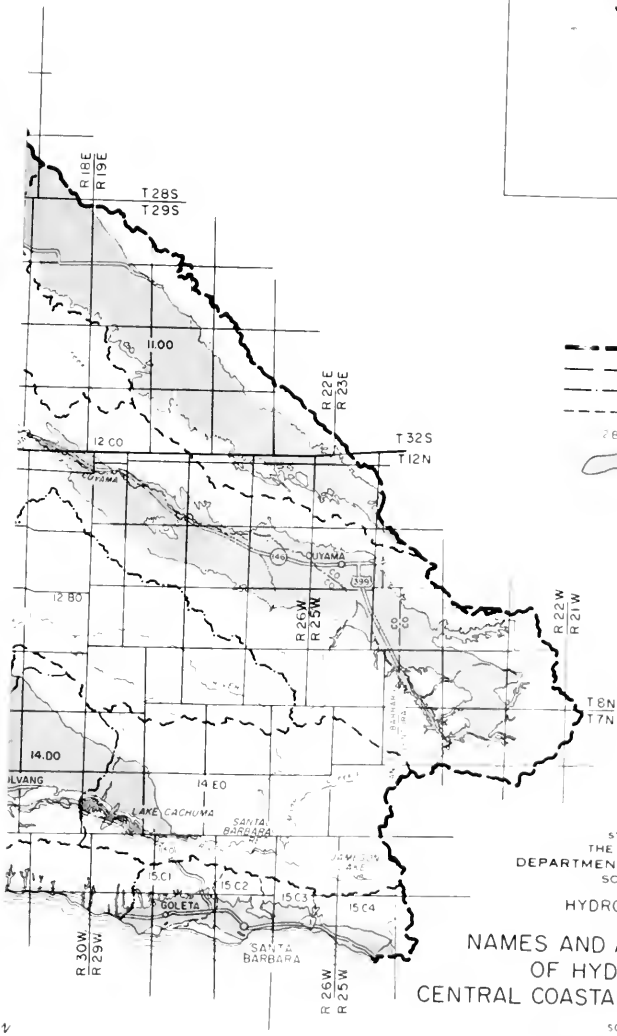


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT
HYDROLOGIC DATA, 1964

LINES OF EQUAL SEASONAL PRECIPITATION DURING 1963-64 AND 50-YEAR MEAN SEASONAL PRECIPITATION



KEY MAP



LEGEND

DRAINAGE PROVINCE BOUNDARY
HYDROLOGIC UNIT BOUNDARY
HYDROLOGIC SUBUNIT BOUNDARY
HYDROLOGIC SUBAREA BOUNDARY
283 AREAL CODE NUMBER
WATER BEARING SEGMENTS

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1964

NAMES AND AREAL CODE NUMBERS OF HYDROLOGIC AREAS CENTRAL COASTAL DRAINAGE PROVINCE (T)

SCALE OF MILES
8 0 8 16 24

1966

PLATE 2

AREAL DESIGNATIONS
HYDROLOGIC UNITS, SUBUNITS AND SUBAREAS

CENTRAL COASTAL DRAINAGE PROVINCE

T-09 SALINAS HYDRO UNIT
- T-09-A0 PASO ROBLES HYDRO SUBUNIT
- T-09-B0 ROBLAR HYDRO SUBUNIT

T-10 SAN LUIS OBISPO HYDRO UNIT
- T-10-A0 CAMBRIA HYDRO SUBUNIT
  - T-10-A1 SAN CARPOFORO HYDRO SUBAREA
  - T-10-A2 ARROYO DE LA CRUZ HYDRO SUBAREA
  - T-10-A3 SAN SIMEON HYDRO SUBAREA
  - T-10-A4 SANTA ROSA HYDRO SUBAREA
  - T-10-A5 VILLA HYDRO SUBAREA
  - T-10-A6 CAYUCOS HYDRO SUBAREA
  - T-10-A7 OLD HYDRO SUBAREA
  - T-10-A8 TIMO HYDRO SUBAREA
- T-10-B0 SAN LUIS OBISPO HYDRO SUBUNIT
  - T-10-B1 MORRO HYDRO SUBAREA
  - T-10-B2 CHORRO HYDRO SUBAREA
  - T-10-B3 LOS OSOS HYDRO SUBAREA
  - T-10-B4 SAN LUIS OBISPO CR HYDRO SUBAREA
  - T-10-B5 POINT SAN LUIS HYDRO SUBAREA
  - T-10-B6 PISMO HYDRO SUBAREA
- T-10-C0 ARROYO GRANDE HYDRO SUBUNIT
  - T-10-C1 ARROYO GRANDE HYDRO SUBAREA
  - T-10-C2 NIPOMO MESA HYDRO SUBAREA

T-11 CAPRIZO PLAIN HYDRO UNIT

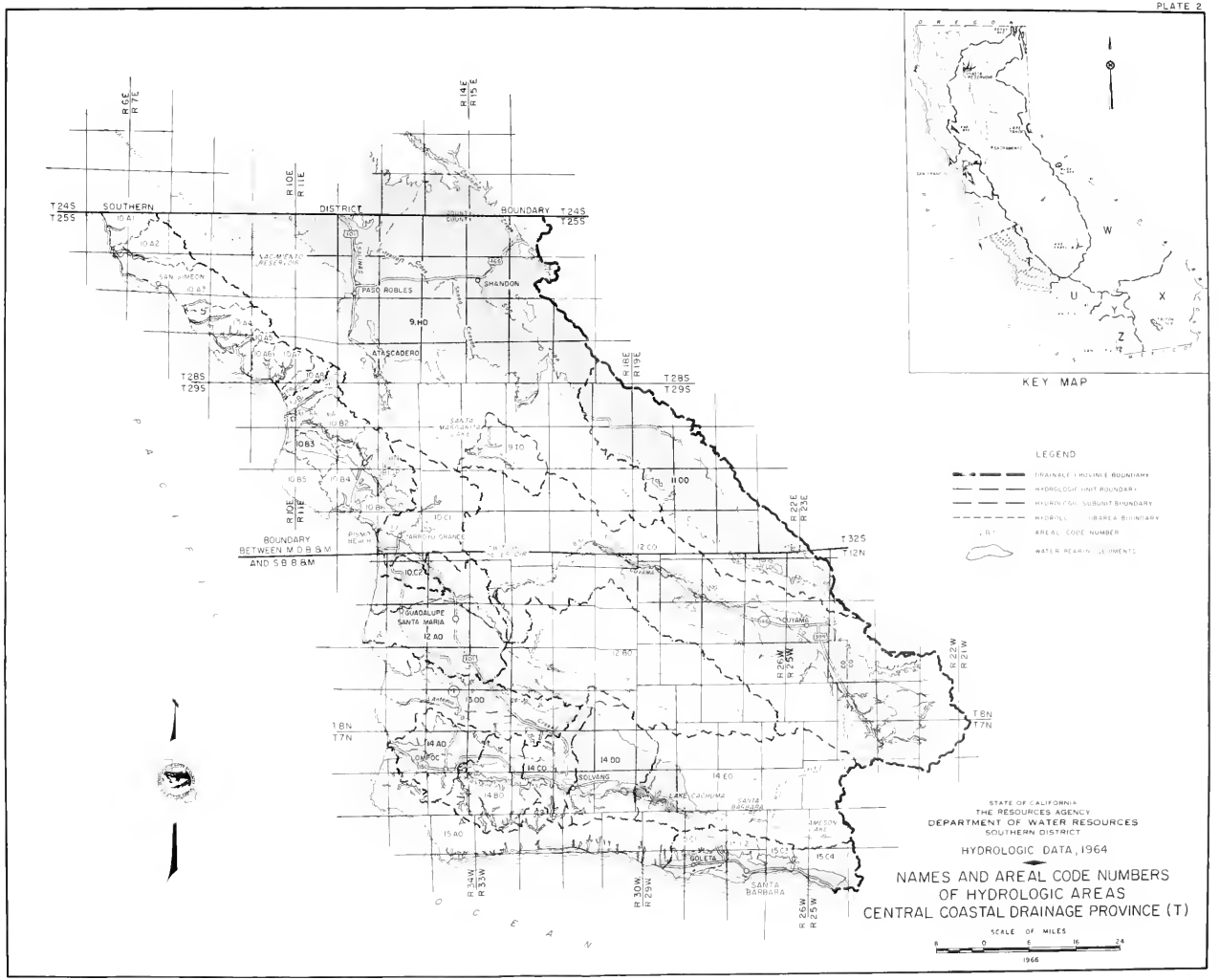
T-12 SANTA MARIA-SISQUOC HYDRO UNIT
- T-12-A0 SANTA MARIA VALLEY SUBUNIT
- T-12-B0 SISQUOC HYDRO SUBUNIT
- T-12-C0 CUYAMA VALLEY HYDRO SUBUNIT

T-13 SAN ANTONIO HYDRO UNIT

T-14 SANTA YNEZ HYDRO UNIT
- T-14-A0 LOMPOC HYDRO SUBUNIT
- T-14-B0 SANTA RITA HYDRO SUBUNIT
- T-14-C0 PUEBLITO HYDRO SUBUNIT
- T-14-D0 SANTA YNEZ HYDRO SUBUNIT
- T-14-E0 HEADWATER HYDRO SUBUNIT

T-15 SANTA BARBARA HYDRO UNIT
- T-15-A0 ARGUELLO HYDRO SUBUNIT
- T-15-B0 SOUTH COAST HYDRO SUBUNIT
  - T-15-C1 GOLETA HYDRO SUBAREA
  - T-15-C2 SANTA BARBARA HYDRO SUBAREA
  - T-15-C3 MONTECITO HYDRO SUBAREA
  - T-15-C4 CARPINTERIA HYDRO SUBAREA

T-16 SANTA BARBARA CHANNEL HYDRO UNIT
- T-16-A0 SAN MIGUEL ISLAND HYDRO SUBUNIT
- T-16-B0 SANTA ROSA ISLAND HYDRO SUBUNIT
- T-16-C0 SANTA CRUZ ISLAND HYDRO SUBUNIT



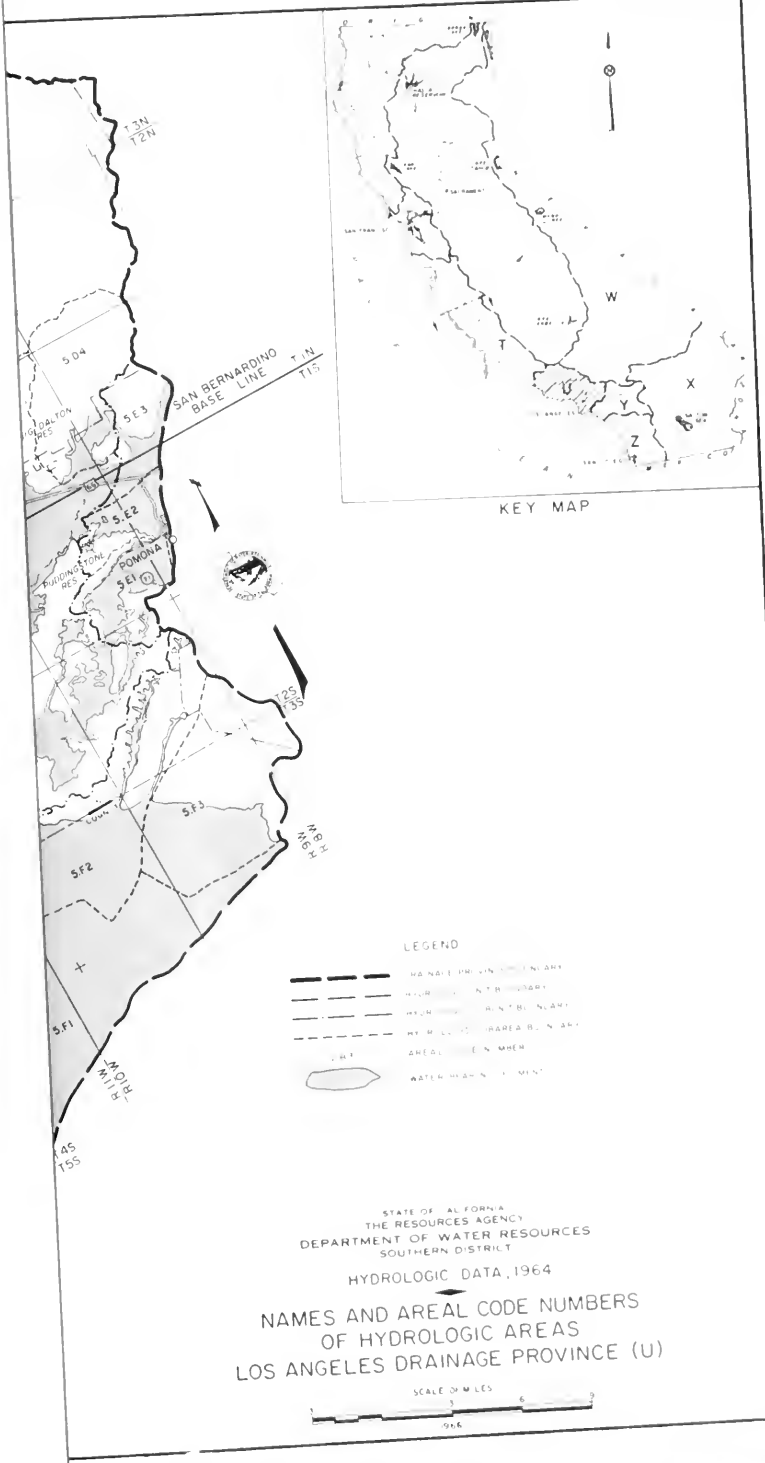
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1964

NAMES AND AREAL CODE NUMBERS OF HYDROLOGIC AREAS CENTRAL COASTAL DRAINAGE PROVINCE (T)

SCALE OF MILES
8 0 8 16 24

1966

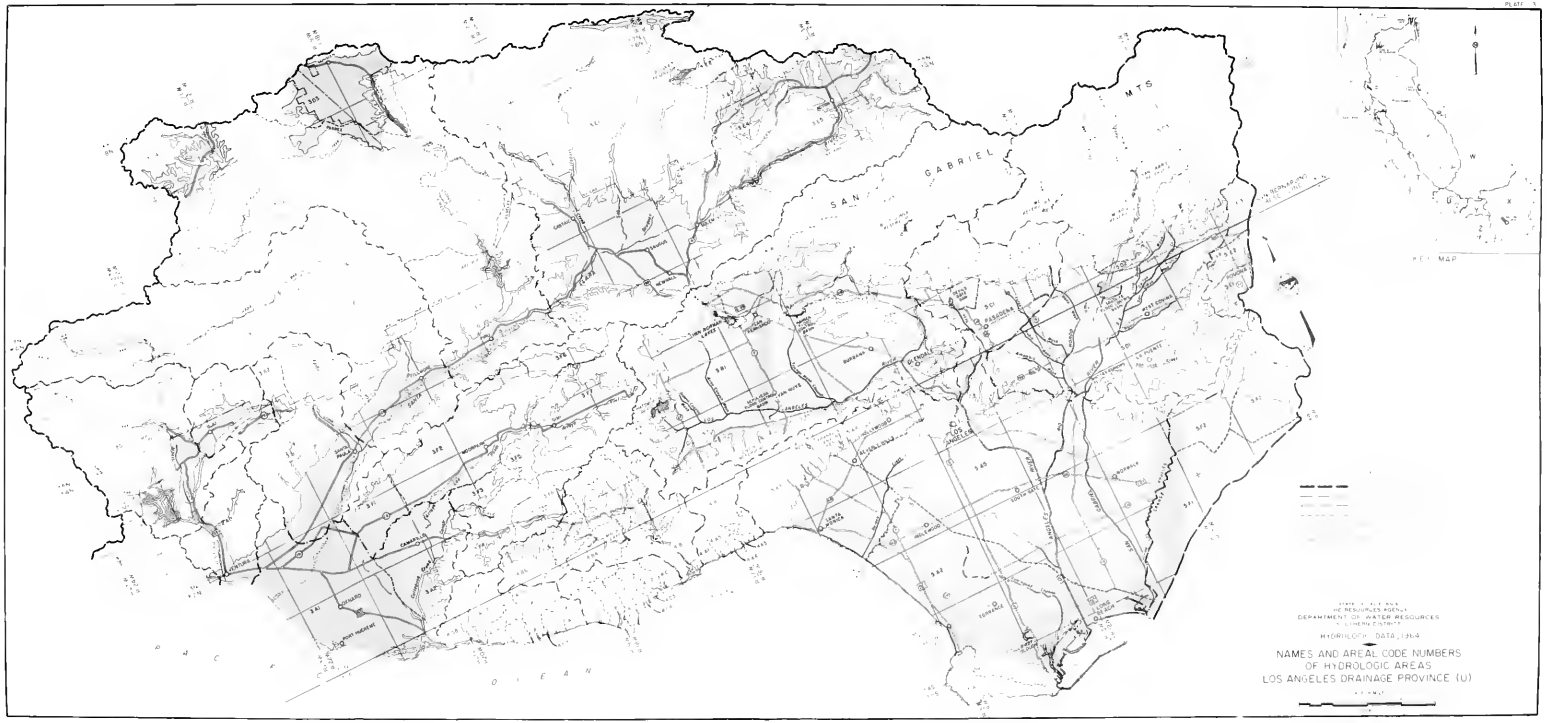


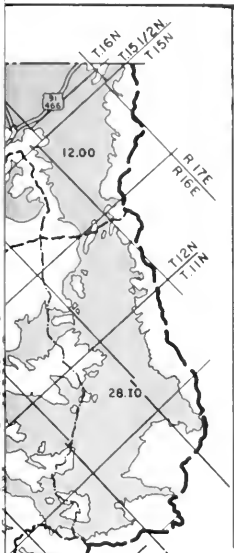
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

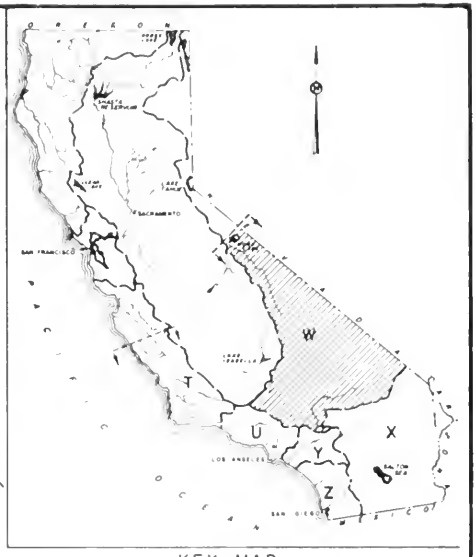
HYDROLOGIC DATA, 1964

NAMES AND AREAL CODE NUMBERS OF HYDROLOGIC AREAS LOS ANGELES DRAINAGE PROVINCE (U)

SCALE OF MILES
0 3 6 9
9x6


SAN GABRIEL MTS
PACIFIC OCEAN
KEY MAP
HYDROLOGIC DATA, 1964
NAMES AND AREAL CODE NUMBERS
OF HYDROLOGIC AREAS
LOS ANGELES DRAINAGE PROVINCE (U)





KEY MAP

LEGEND

DRAINAGE PROVINCE BOUNDARY

HYDROLOGIC UNIT BOUNDARY

HYDROLOGIC SUBUNIT BOUNDARY

HYDROLOGIC SUBAREA BOUNDARY

283 AREAL CODE NUMBER

WATER BEARING SEDIMENTS

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1964

NAMES AND AREAL CODE NUMBERS OF HYDROLOGIC AREAS LAHONTAN DRAINAGE PROVINCE (W)

SCALE OF MILES

10 0 10 20 30

966

[illegible]

[illegible] HYDRO UNIT
[illegible] HYDRO UNIT
[illegible] HYDRO UNIT
[illegible] HYDRO SUBUNIT
[illegible] HYDRO SUBUNIT
[illegible] HYDRO SUBUNIT
CENTENNIAL HYDRO SUBUNIT
FISH LAKE HYDRO UNIT
DEEP SPRINGS HYDRO UNIT
EUREKA HYDRO UNIT
MARBLE BATH HYDRO SUBUNIT
EUREKA HYDRO SUBUNIT
SALINE HYDRO UNIT
SALINE HYDRO SUBUNIT
RACE TRACK HYDRO UNIT
HIDDEN VALLEY HYDRO SUBUNIT
SAND FLAT HYDRO SUBUNIT
AMARGOSA HYDRO UNIT
DEATH VALLEY HYDRO SUBUNIT
VALJEAN HYDRO SUBAREA
SHADOW HYDRO SUBAREA
CALIFORNIA HYDRO SUBAREA
PAHRUMP HYDRO UNIT
MESQUITE HYDRO UNIT
IVANPAH HYDRO UNIT
OWLSHEAD HYDRO UNIT
LOST LAKE HYDRO SUBUNIT
OWLSHEAD HYDRO SUBUNIT
NELSON HYDRO UNIT
NELSON HYDRO SUBUNIT
PILOT KNOB HYDRO UNIT
GOLDSTONE HYDRO UNIT
SUPERIOR HYDRO UNIT
PANAMINT HYDRO UNIT
WINGATE PASS HYDRO SUBUNIT
WILD ROSE HYDRO SUBUNIT
WHITE SAGE HYDRO SUBAREA
WILD ROSE HYDRO SUBAREA
LEE FLAT HYDRO SUBUNIT
SANTA ROSA FLAT HYDRO SUBUNIT
SANTA ROSA FLAT HYDRO SUBAREA
SILVER DOLLAR HYDRO SUBAREA
PANAMINT HYDRO SUBUNIT
BROWN HYDRO SUBUNIT
ROBBERS HYDRO SUBUNIT

[illegible] HYDRO UNIT
HARPER HYDRO SUBUNIT
UPPER [illegible] HYDRO UNIT
INDIAN WELLS HYDRO SUBUNIT
ANTELOPE HYDRO UNIT
ANTELOPE HYDRO SUBUNIT
LANCASTER HYDRO SUBAREA
NORTH MUROC HYDRO SUBAREA
BUTTES HYDRO SUBAREA
MOJAVE HYDRO UNIT
EL MIRAGE HYDRO SUBUNIT
UPPER MOJAVE HYDRO SUBUNIT
HARPER HYDRO SUBUNIT
LOWER MOJAVE HYDRO SUBUNIT
LANGFORD HYDRO SUBAREA
SILVER LAKE HYDRO SUBAREA
BRISTOL HYDRO UNIT

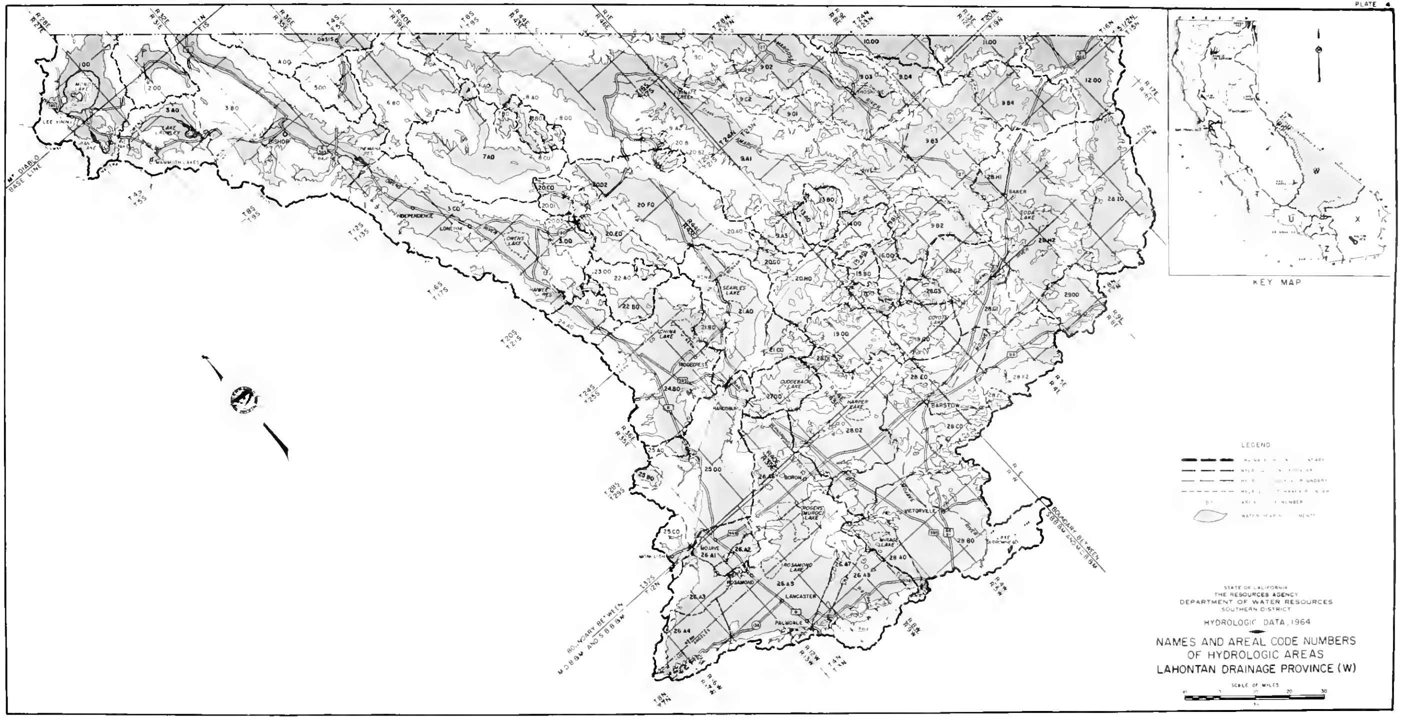


PLATE 5

HYDROLOGI

COLORADO RIVER

X-01.
X-02.
X-03.
X-04.
X-05.
X-06.
X-07.00
X-08.00
X-08.A
X-08.B
X-09.00
X-09.A
X-09.B
X-10.
X-10.A
X-10.B
X-11.00
X-12.00
X-13.00
X-13.A
X-13.B
X-13.C
X-14.00
X-15.00
X-15.AD
X-15.B
X-15.C
X-15.D
X-15.E
X-16.00
X-17.00
X-17.A
X-17.B
X-17.C
X-17.D
X-18.00
X-19.00
X-19.A
X-19.B
X-19.C
X-19.C1
X-19.C2
X-19.D
X-19.01
X-19.02
X-19.03
X-19.04
X-19.05
X-19.06
X-19.07
X-20.00
X-21.00
X-22.00
X-22.A
X-22.A1
X-22.A2
X-22.A3
X-22.B
X-22.C
X-22.D
X-22.E
X-22.F
X-22.F1
X-22.F2
X-22.F3
X-22.G
X-22.G1
X-22.G2
X-23.00
X-23.A
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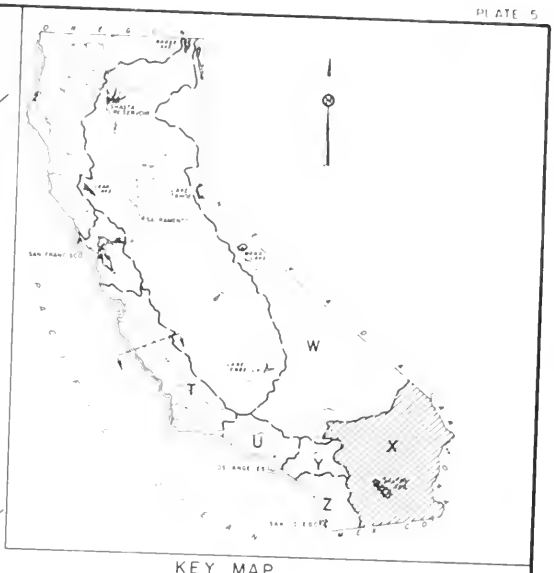
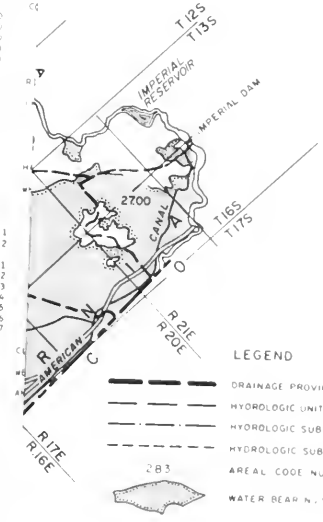
X-25.00
X-26.00
X-27.00



KEY MAP



STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1964

NAMES AND AREAL CODE NUMBERS
OF HYDROLOGIC AREAS
OLORADO RIVER BASIN DRAINAGE PROVINCE (X)

SCALE OF MILES
10 0 10 20 30

1966

AREAL DESIGNATIONS
HYDROLOGIC UNITS, SUBUNITS AND SUBAREAS

COLORADO RIVER BASIN DRAINAGE PROVINCE

X-01.00 LUCERNE HYDRO UNIT

X-02.00 JOHNSON HYDRO UNIT

X-03.00 BESSEMER HYDRO UNIT

X-04.00 MEANS HYDRO UNIT

X-05.00 EMERSON HYDRO UNIT

X-06.00 LAVIC HYDRO UNIT

X-07.00 DEADMAN HYDRO UNIT

X-08.00 JOSHUA TREE HYDRO UNIT
X-08.A0 WARREN HYDRO SUBUNIT
X-08.B0 COPPER MOUNTAIN HYDRO SUBUNIT

X-09.00 DALE HYDRO UNIT
X-09.A0 TWENTYNINE PALMS HYDRO SUBUNIT
X-09.B0 DALE HYDRO SUBUNIT

X-10.00 BRISTOL HYDRO UNIT
X-10.A0 BRISTOL HYDRO SUBUNIT
X-10.B0 FENNER HYDRO SUBUNIT

X-11.00 CADIZ HYDRO UNIT

X-12.00 WARD HYDRO UNIT

X-13.00 PIUTE HYDRO UNIT
X-13.A0 LANFAIR HYDRO SUBUNIT
X-13.B0 PIUTE HYDRO SUBUNIT
X-13.C0 NEEDLES HYDRO SUBUNIT

X-14.00 CHEMEHUEVIS HYDRO UNIT

X-15.00 COLORADO HYDRO UNIT
X-15.A0 VIDAL HYDRO SUBUNIT
X-15.B0 BIG WASH HYDRO SUBUNIT
X-15.C0 QUIEN SABE HYDRO SUBUNIT
X-15.D0 PALO VERDE HYDRO SUBUNIT
X-15.E0 ARROYO SECO HYDRO SUBUNIT

X-16.00 RICE HYDRO UNIT

X-17.00 CHUCKWALLA HYDRO UNIT
X-17.A0 FORD HYDRO SUBUNIT
X-17.B0 PALEN HYDRO SUBUNIT
X-17.C0 PINTO HYDRO SUBUNIT
X-17.D0 PLEASANT HYDRO SUBUNIT

X-18.00 HAYFIELD HYDRO UNIT

X-19.00 WHITEWATER HYDRO UNIT
X-19.A0 MORONGO HYDRO SUBUNIT
X-19.B0 SHAVERS HYDRO SUBUNIT
X-19.C0 SAN GORGONIO HYDRO SUBUNIT
X-19.C1 BEAUMONT HYDRO SUBAREA
X-19.C2 SAN GORGONIO HYDRO SUBAREA
X-19.D0 COACHELLA HYDRO SUBUNIT
X-19.D1 GARNET HILL HYDRO SUBAREA
X-19.D2 MISSION CREEK HYDRO SUBAREA
X-19.D3 MIRACLE HILL HYDRO SUBAREA
X-19.D4 SKY VALLEY HYDRO SUBAREA
X-19.D5 FARGO CANYON HYDRO SUBAREA
X-19.D6 THOUSAND PALMS HYDRO SUBAREA
X-19.D7 INDIO HYDRO SUBAREA

X-20.00 CLARK HYDRO UNIT

X-21.00 WEST SALTON SEA HYDRO UNIT

X-22.00 ANZA BORREGO HYDRO UNIT
X-22.A0 BORREGO HYDRO SUBUNIT
X-22.A1 TERWILLIGER HYDRO SUBAREA
X-22.A2 COLLINS HYDRO SUBAREA
X-22.A3 BORREGO HYDRO SUBAREA
X-22.B0 OCOTILLO-LR S FELIPE HYDR SUBUNIT
X-22.C0 MESCAL BAJADA HYDRO SUBUNIT
X-22.D0 SAN FELIPE HYDRO SUBUNIT
X-22.E0 MASON HYDRO SUBUNIT
X-22.F0 VALLECITO-CARRIZO HYDRO SUBUNIT
X-22.F1 CARRIZO HYDRO SUBAREA
X-22.F2 VALLECITO HYDRO SUBAREA
X-22.F3 CANEBRAKE HYDRO SUBAREA
X-22.G0 JACUMBA HYDRO SUBUNIT
X-22.G1 MCCAIN HYDRO SUBAREA
X-22.G2 JACUMBA HYDRO SUBAREA

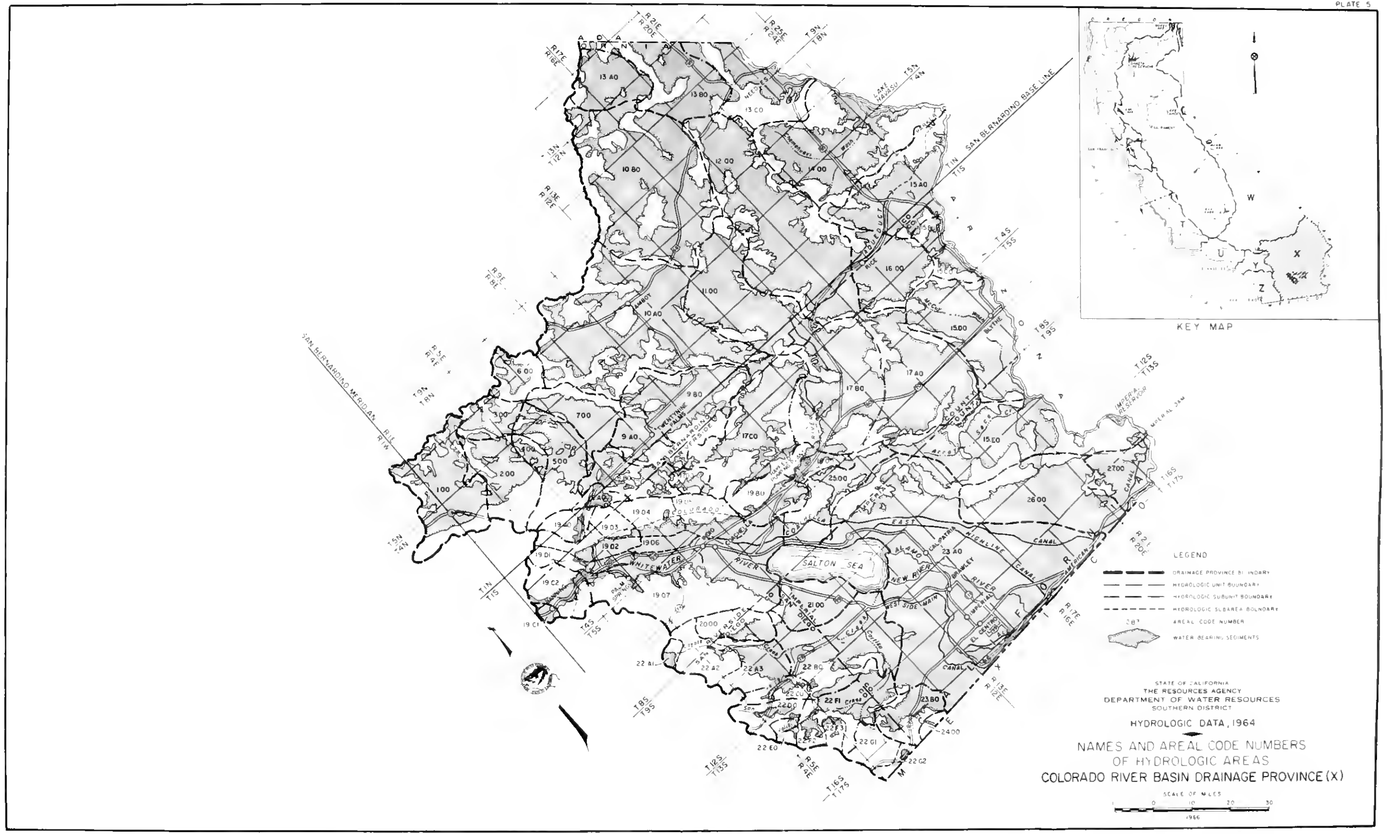
X-23.00 IMPERIAL HYDRO UNIT
X-23.A0 IMPERIAL HYDRO SUBUNIT
X-23.B0 COYOTE WELLS HYDRO SUBUNIT

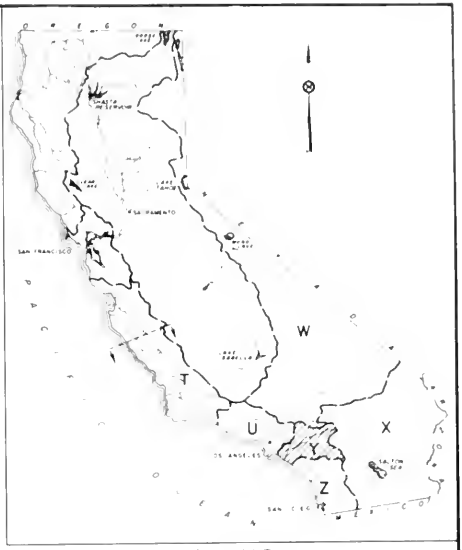
X-24.00 DAVIES HYDRO UNIT

X-25.00 EAST SALTON SEA HYDRO UNIT

X-26.00 AMOS-OGILBY HYDRO UNIT

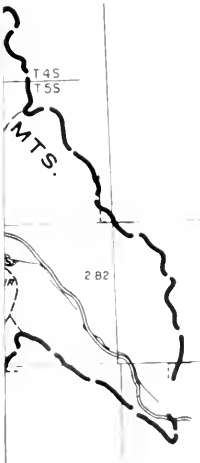
X-27.00 YUMA HYDRO UNIT





KEY MAP

IN
IS



LEGEND

DRAINAGE PROVINCE BOUNDARY
HYDROLOGIC UNIT BOUNDARY
HYDROLOGIC SUBUNIT BOUNDARY
HYDROLOGIC SUBAREA BOUNDARY
283 AREAL CODE NUMBER
WATER BEARING SEDIMENTS

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1964

NAMES AND AREAL CODE NUMBERS OF HYDROLOGIC AREAS SANTA ANA DRAINAGE PROVINCE (Y)

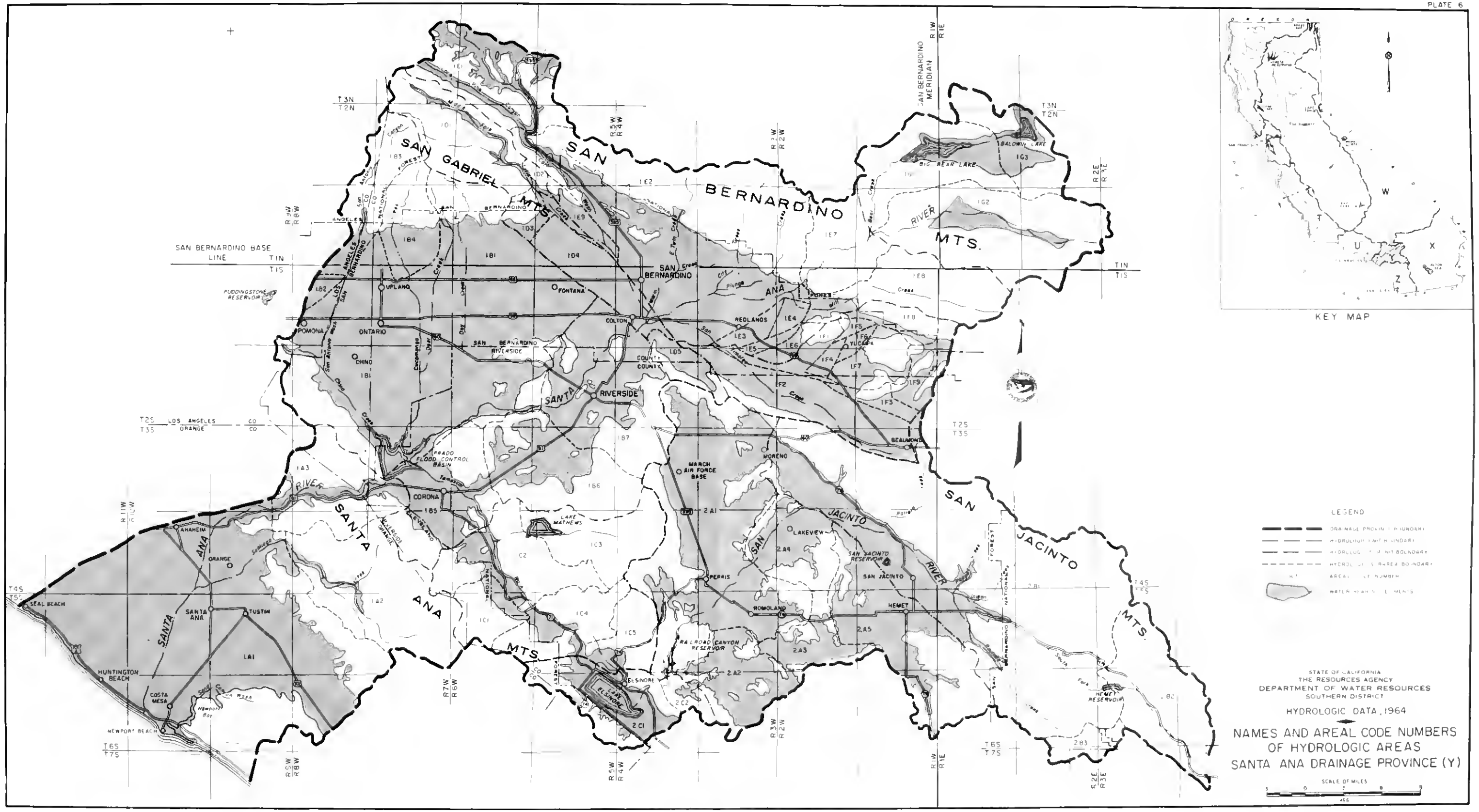
SCALE OF MILES
1 0 3 6 9

9-66

AREAL DESIGNATIONS
HYDROLOGIC UNITS, SUBUNITS AND SUBAREAS

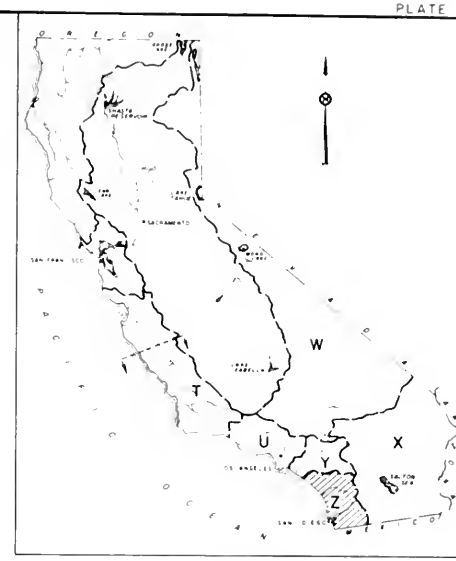
SANTA ANA DRAINAGE PROVINCE

Y-01.00	SANTA ANA RIVER HYDRO UNIT
Y-01.A0	LOWER SANTA ANA RIV HYDRO SUBUNIT
Y-01.A1	EAST COASTAL PLAIN HYDRO SUBAREA
Y-01.A2	SANTIAGO HYDRO SUBAREA
Y-01.A3	SANTA ANA NARROWS HYDRO SUBAREA
Y-01.B0	MIDDLE SANTA ANA RIV HYDR SUBUNIT
Y-01.B1	CHINO HYDRO SUBAREA
Y-01.B2	HARRISON HYDRO SUBAREA
Y-01.B3	CLAREMONT HEIGHTS HYDRO SUBAREA
Y-01.B4	CUCAMONGA HYDRO SUBAREA
Y-01.B5	TEMESCAL HYDRO SUBAREA
Y-01.B6	ARLINGTON HYDRO SUBAREA
Y-01.B7	RIVERSIDE HYDRO SUBAREA
Y-01.C0	LAKE MATHEWS HYDRO SUBUNIT
Y-01.C1	COLDWATER HYDRO SUBAREA
Y-01.C2	BEDFORD HYDRO SUBAREA
Y-01.C3	LAJALLO HYDRO SUBAREA
Y-01.C4	LEE LAKE HYDRO SUBAREA
Y-01.C5	TERRA CUITA HYDRO SUBAREA
Y-01.D0	COLTON-RIALTO HYDRO SUBUNIT
Y-01.D1	UPPER LYTLE HYDRO SUBAREA
Y-01.D2	LOWER LYTLE HYDRO SUBAREA
Y-01.D3	UPPER COLTON-RIALTO HYDRO SUBAREA
Y-01.D4	COLTON-RIALTO HYDRO SUBAREA
Y-01.D5	RECHE HYDRO SUBAREA
Y-01.E0	UPPER SANTA ANA HYDRO SUBUNIT
Y-01.E1	CAJON HYDRO SUBAREA
Y-01.E2	BUNKER HILL HYDRO SUBAREA
Y-01.E3	REDLANDS HYDRO SUBAREA
Y-01.E4	MENTONE HYDRO SUBAREA
Y-01.E5	RESERVOIR HYDRO SUBAREA
Y-01.E6	CRAFTON HYDRO SUBAREA
Y-01.E7	SANTA ANA CANYON HYDR. SUBAREA
Y-01.E8	MILL CREEK HYDRO SUBAREA
Y-01.E9	SYCAMORE HYDRO SUBAREA
Y-01.F0	SAN TIMOTEO HYDRO SUBUNIT
Y-01.F1	YUCAIPA HYDRO SUBAREA
Y-01.F2	SAN TIMOTEO HYDRO SUBAREA
Y-01.F3	CHERRY VALLEY HYDRO SUBAREA
Y-01.F4	CHICKEN HILL HYDRO SUBAREA
Y-01.F5	GATEWAY HYDRO SUBAREA
Y-01.F6	OAK GLEN HYDRO SUBAREA
Y-01.F7	SOUTH MESA HYDRO SUBAREA
Y-01.F8	TRIPLE FALLS CREEK HYDRO SUBAREA
Y-01.F9	NOBLE CREEK HYDRO SUBAREA
Y-01.G0	SAN BERNARDINO MTN HYDRO SUBUNIT
Y-01.G1	BEAR VALLEY HYDRO SUBAREA
Y-01.G2	SEVEN OAKS HYDRO SUBAREA
Y-01.G3	BALDWIN HYDRO SUBAREA
Y-02.00	SAN JACINTO VALLEY HYDRO UNIT
Y-02.A0	PERRIS HYDRO SUBUNIT
Y-02.A1	PERRIS VALLEY HYDRO SUBAREA
Y-02.A2	MENIFEE HYDRO SUBAREA
Y-02.A3	WINCHESTER HYDRO SUBAREA
Y-02.A4	LAKEVIEW HYDRO SUBAREA
Y-02.A5	HEMET HYDRO SUBAREA
Y-02.B0	SAN JACINTO HYDRO SUBUNIT
Y-02.B1	SAN JACINTO HYDRO SUBAREA
Y-02.B2	HEMET LAKE HYDRO SUBAREA
Y-02.B3	BAUTISTA HYDRO SUBAREA
Y-02.C0	ELSINORE HYDRO SUBUNIT
Y-02.C1	ELSINORE HYDRO SUBAREA
Y-02.C2	RAILROAD HYDRO SUBAREA



SAN DIEGO DRAINAGE PROVINCE

Z-01.00	SAN JUAN HYDRO
Z-01.A0	LAGUNA HYDRO
Z-01.A1	SAN JOAQUI
Z-01.A2	LAGUNA HYD
Z-01.A3	ALISO HYDR
Z-01.A4	DANA POINT
Z-01.B0	SAN JUAN HYD
Z-01.C0	SAN CLEMENTE
Z-01.D0	SAN MATEO HY
Z-01.E0	SAN ONOFRE H
Z-01.E1	SAN ONOFRE
Z-01.E2	LAS PULGAS
Z-01.E3	STUART HYD
Z-02.00	SANTA MARGARIT
Z-02.A0	YSIDORA HYDR
Z-02.A1	YSIDORA HY
Z-02.A2	CHAPPO HYD
Z-02.A3	UPPER HYDR
Z-02.B0	DE LUZ HYDRO
Z-02.B1	DE LUZ HYD
Z-02.B2	GAVILAN HY
Z-02.B3	VALLECITOS
Z-02.C0	MURRIETA HYD
Z-02.C1	WILDOMAR H
Z-02.C2	MURRIETA H
Z-02.C3	FRENCH HYD
Z-02.C4	LOWER DOME
Z-02.C5	DOMENIGONI
Z-02.C6	DIAMOND HY
Z-02.D0	AULD HYDRO S
Z-02.D1	AULD HYDRO
Z-02.D2	GERTRUDIS
Z-02.D3	LOWER TUCA
Z-02.D4	TUCALOTA H
Z-02.E0	PECHANGA HYD
Z-02.E1	PAUBA HYDR
Z-02.E2	PECHANGA H
Z-02.F0	WILSON HYDRO
Z-02.F1	LANCASTER
Z-02.F2	LEWIS HYDR
Z-02.F3	WILSON HYD
Z-02.G0	ANZA HYDRO S
Z-02.G1	LOWER CDAH
Z-02.G2	UPPER CDAH
Z-02.G3	ANZA HYDRO
Z-02.G4	BURNT HYDR
Z-02.H0	AGUANGA HYDR
Z-02.H1	VAIL HYDRO
Z-02.H2	DEVILS HOL
Z-02.H3	REDEC HYDR
Z-02.H4	AGUANGA HY
Z-02.I0	OAKGROVE HYD
Z-02.I1	LOWER CULP
Z-02.I2	OAKGROVE H
Z-02.I3	DODGE HYDR
Z-02.I4	CHIHUAHUA
Z-03.00	SAN LUIS REY H
Z-03.A0	BONSALL HYDR
Z-03.A1	MISSION HY
Z-03.A2	BONSALL HY
Z-03.A3	MOOSA HYDR
Z-03.A4	VALLEY CEN
Z-03.A5	WOODS HYDR
Z-03.A6	RINCON HYD
Z-03.B0	MONSERATE HY
Z-03.B1	PALA HYDRO
Z-03.B2	PAUMA HYDR
Z-03.B3	SAN LUIS R
Z-03.C0	WARNER HYDRO
Z-03.C1	WARNER HYD
Z-03.C2	COMBS HYDR
Z-04.00	CARLSBAD HYDRO
Z-04.A0	LOMA ALTA HY
Z-04.B0	VISTA HYDRO
Z-04.B1	CARLSBAD H
Z-04.B2	VISTA HYDR
Z-04.C0	AGUA HEDIOND
Z-04.C1	AGUA HEDIO
Z-04.C2	BUENA HYDR
Z-04.D0	ENCINAS HYDR
Z-04.E0	SAN MARCOS H
Z-04.E1	BATIQUITOS
Z-04.E2	SAN MARCOS
Z-04.E3	TWIN OAKS
Z-04.F0	ESCONDIDO HY
Z-04.F1	SAN ELIJO
Z-04.F2	ESCONDIDO
Z-04.F3	LAKE WOHLF
Z-05.00	SAN DIEGUITO H
Z-05.A0	SAN DIEGUITO
Z-05.A1	SAN DIEGU
Z-05.A2	LA JOLLA H
Z-05.B0	HODGES HYDRO
Z-05.B1	HODGES HYD
Z-05.B2	GREEN HYDR
Z-05.B3	FELICITA H
Z-05.B4	BEAR HYDRO
Z-05.C0	SAN PASQUAL
Z-05.C1	HIGHLAND H
Z-05.C2	SAN PASQUA
Z-05.C3	REED HYDRO
Z-05.C4	HIDDEN HYD
Z-05.C5	GUEJITO HY
Z-05.C6	VINEYARD H
Z-05.D0	SANTA MARIA
Z-05.D1	RAMONA HYD
Z-05.D2	LOWER HATF
Z-05.D3	WASH HOLLO
Z-05.D4	UPPER HATF
Z-05.D5	BALLENA HY
Z-05.D6	EAST SANTA
Z-05.D7	WEST SANTA
Z-05.E0	SANTA YSABEL
Z-05.E1	RODEN HYDR
Z-05.E2	PAMO HYDRO
Z-05.E3	SUTHERLAND
Z-05.E4	SANTA YSAB



KEY MAP

LEGEND

DRAINAGE PROVINCE BOUNDARY

HYDROLOGIC UNIT BOUNDARY

HYDROLOGIC SUBUNIT BOUNDARY

HYDROLOGIC SUBAREA BOUNDARY

283 AREAL CODE NUMBER

WATER BEARING SEDIMENTS

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1964

NAMES AND AREAL CODE NUMBERS OF HYDROLOGIC AREAS SAN DIEGO DRAINAGE PROVINCE (Z)

SCALE OF MILES

0 4 8 12

1966

AREAL DESIGNATIONS
HYDROLOGIC UNITS, SUBUNITS AND SUBAREAS

SAN DIEGO DRAINAGE PROVINCE

Z-01.00	SAN JUAN HYDRO UNIT
Z-01.A0	LAGUNA HYDRO SUBUNIT
Z-01.A1	SAN JOAQUIN HYDRO SUBAREA
Z-01.A2	LAGUNA HYDRO SUBAREA
Z-01.A3	ALISO HYDRO SUBAREA
Z-01.A4	DANA POINT HYDRO SUBAREA
Z-01.B0	SAN JUAN HYDRO SUBUNIT
Z-01.C0	SAN CLEMENTE HYDRO SUBUNIT
Z-01.D0	SAN MATEO HYDRO SUBUNIT
Z-01.E0	SAN ONOFRE HYDRO SUBUNIT
Z-01.E1	SAN ONOFRE HYDRO SUBAREA
Z-01.E2	LAS PULGAS HYDRO SUBAREA
Z-01.E3	STUART HYDRO SUBAREA
Z-02.00	SANTA MARGARITA HYDRO UNIT
Z-02.A0	YSIDORA HYDRO SUBUNIT
Z-02.A1	YSIDORA HYDRO SUBAREA
Z-02.A2	CHAPPO HYDRO SUBAREA
Z-02.A3	UPPER HYDRO SUBAREA
Z-02.B0	DE LUZ HYDRO SUBUNIT
Z-02.B1	DE LUZ HYDRO SUBAREA
Z-02.B2	GAVILAN HYDRO SUBAREA
Z-02.B3	VALLECITOS HYDRO SUBAREA
Z-02.C0	MURRIETA HYDRO SUBUNIT
Z-02.C1	WILDOMAR HYDRO SUBAREA
Z-02.C2	MURRIETA HYDRO SUBAREA
Z-02.C3	FRENCH HYDRO SUBAREA
Z-02.C4	LOWER DOMENIGONI HYDRO SUBAREA
Z-02.C5	DOMENIGONI HYDRO SUBAREA
Z-02.C6	DIAMOND HYDRO SUBAREA
Z-02.D0	AULD HYDRO SUBUNIT
Z-02.D1	AULD HYDRO SUBAREA
Z-02.D2	GERTRUDIS HYDRO SUBAREA
Z-02.D3	LOWER TUCALOTA HYDRO SUBAREA
Z-02.D4	TUCALOTA HYDRO SUBAREA
Z-02.E0	PECHANGA HYDRO SUBUNIT
Z-02.E1	PAUBA HYDRO SUBAREA
Z-02.E2	PECHANGA HYDRO SUBAREA
Z-02.F0	WILSON HYDRO SUBUNIT
Z-02.F1	LANCASTER VALLEY HYDRO SUBAREA
Z-02.F2	LEWIS HYDRO SUBAREA
Z-02.F3	WILSON HYDRO SUBAREA
Z-02.G0	ANZA HYDRO SUBUNIT
Z-02.G1	LOWER COAHUILA HYDRO SUBAREA
Z-02.G2	UPPER COAHUILA HYDRO SUBAREA
Z-02.G3	ANZA HYDRO SUBAREA
Z-02.G4	BURNT HYDRO SUBAREA
Z-02.H0	AGUANGA HYDRO SUBUNIT
Z-02.H1	VAIL HYDRO SUBAREA
Z-02.H2	DEVILS HOLE HYDRO SUBAREA
Z-02.H3	REDEC HYDRO SUBAREA
Z-02.H4	AGUANGA HYDRO SUBAREA
Z-02.I0	OAKGROVE HYDRO SUBUNIT
Z-02.I1	LOWER CULP HYDRO SUBAREA
Z-02.I2	OAKGROVE HYDRO SUBAREA
Z-02.I3	DODGE HYDRO SUBAREA
Z-02.I4	CHIHUAHUA HYDRO SUBAREA
Z-03.00	SAN LUIS REY HYDRO UNIT
Z-03.A0	BONSALL HYDRO SUBUNIT
Z-03.A1	MISSION HYDRO SUBAREA
Z-03.A2	BONSALL HYDRO SUBAREA
Z-03.A3	MOOSA HYDRO SUBAREA
Z-03.A4	VALLEY CENTER HYDRO SUBAREA
Z-03.A5	WOODS HYDRO SUBAREA
Z-03.A6	RINCON HYDRO SUBAREA
Z-03.B0	MONSERATE HYDRO SUBUNIT
Z-03.B1	PALA HYDRO SUBAREA
Z-03.B2	PAUMA HYDRO SUBAREA
Z-03.B3	SAN LUIS REY HYDRO SUBAREA
Z-03.C0	WARNER HYDRO SUBUNIT
Z-03.C1	WARNER HYDRO SUBAREA
Z-03.C2	COMBS HYDRO SUBAREA
Z-04.00	CARLSBAD HYDRO UNIT
Z-04.A0	LOMA ALTA HYDRO SUBUNIT
Z-04.B0	VISTA HYDRO SUBUNIT
Z-04.B1	CARLSBAD HYDRO SUBAREA
Z-04.B2	VISTA HYDRO SUBAREA
Z-04.C0	AGUA HEDIONDA HYDRO SUBUNIT
Z-04.C1	AGUA HEDIONDA HYDRO SUBAREA
Z-04.C2	BUENA HYDRO SUBAREA
Z-04.D0	ENCINAS HYDRO SUBUNIT
Z-04.E0	SAN MARCOS HYDRO SUBUNIT
Z-04.E1	BATIQUITOS HYDRO SUBAREA
Z-04.E2	SAN MARCOS HYDRO SUBAREA
Z-04.E3	TWIN OAKS HYDRO SUBAREA
Z-04.F0	ESCONDIDO HYDRO SUBUNIT
Z-04.F1	SAN ELIJO HYDRO SUBAREA
Z-04.F2	ESCONDIDO HYDRO SUBAREA
Z-04.F3	LAKE WOHLFORD HYDRO SUBAREA
Z-05.00	SAN DIEGUITO HYDRO UNIT
Z-05.A0	SAN DIEGUITO HYDRO SUBUNIT
Z-05.A1	SAN DIEGUITO HYDRO SUBAREA
Z-05.A2	LA JOLLA HYDRO SUBAREA
Z-05.B0	HODGES HYDRO SUBUNIT
Z-05.B1	HODGES HYDRO SUBAREA
Z-05.B2	GREEN HYDRO SUBAREA
Z-05.B3	FELICITA HYDRO SUBAREA
Z-05.B4	BEAR HYDRO SUBAREA
Z-05.C0	SAN PASQUAL HYDRO SUBUNIT
Z-05.C1	HIGHLAND HYDRO SUBAREA
Z-05.C2	SAN PASQUAL HYDRO SUBAREA
Z-05.C3	REED HYDRO SU AREA
Z-05.C4	HIDDEN HYDRO SUBAREA
Z-05.C5	GUEJITO HYDRO SUBAREA
Z-05.C6	VINEYARD HYDRO SUBAREA
Z-05.D0	SANTA MARIA VALLEY HYDRO SUBUNIT
Z-05.D1	RAMONA HYDRO SUBAREA
Z-05.D2	LOWER HATFIELD HYDRO SUBAREA
Z-05.D3	WASH HOLLOW HYDRO SUBAREA
Z-05.D4	UPPER HATFIELD HYDRO SUBAREA
Z-05.D5	BALLENA HYDRO SUBAREA
Z-05.D6	EAST SANTA TERESA HYDRO SUBAREA
Z-05.D7	WEST SANTA TERESA HYDRO SUBAREA
Z-05.E0	SANTA YSABEL HYDRO SUBUNIT
Z-05.E1	RODEN HYDRO SUBAREA
Z-05.E2	RAMO HYDRO SUBAREA
Z-05.E3	SUTHERLAND HYDRO SUBAREA
Z-05.E4	SANTA YSABEL HYDRO SUBAREA

Z-06.00	PENASQUITO HYDRO UNIT
Z-06.A0	SOLEDAD HYDRO SUBUNIT
Z-06.B0	POWAY HYDRO SUBUNIT
Z-06.C0	SCRIPPS HYDRO SUBUNIT
Z-06.D0	MIRAMAR HYDRO SUBUNIT
Z-06.E0	TECOLOTE HYDRO SUBUNIT
Z-07.00	SAN DIEGO HYDRO UNIT
Z-07.A0	LOWER SAN DIEGO HYDRO SUBUNIT
Z-07.A1	MISSION SAN DIEGO HYDRO SUBAREA
Z-07.A2	SANTEE HYDRO SUBAREA
Z-07.A3	EL CAJON HYDRO SUBAREA
Z-07.A4	COCHES HYDRO SUBAREA
Z-07.A5	EL MONTE HYDRO SUBAREA
Z-07.B0	SAN VICENTE HYDRO SUBUNIT
Z-07.B1	SAN VICENTE HYDRO SUBAREA
Z-07.B2	KIMBALL HYDRO SUBAREA
Z-07.B3	GOWER HYDRO SUBAREA
Z-07.B4	BARONA HYDRO SUBAREA
Z-07.C0	EL CAPITAN HYDRO SUBUNIT
Z-07.C1	EL CAPITAN HYDRO SUBAREA
Z-07.C2	GLEN OAKS HYDRO SUBAREA
Z-07.C3	ALPINE HYDRO SUBAREA
Z-07.D0	CUYAMACA HYDRO SUBUNIT
Z-07.D1	INAJA HYDRO SUBAREA
Z-07.D2	SPENCER HYDRO SUBAREA
Z-07.D3	CUYAMACA HYDRO SUBAREA
Z-08.00	CORONADO HYDRO UNIT
Z-08.A0	POINT LOMA HYDRO SUBUNIT
Z-08.B0	SAN DIEGO MESA HYDRO SUBUNIT
Z-08.B1	LINDBERGH HYDRO SUBAREA
Z-08.B2	CHOLLAS HYDRO SUBAREA
Z-08.C0	PARADISE HYDRO SUBUNIT
Z-08.C1	EL TOYAN HYDRO SUBAREA
Z-08.C2	PARADISE HYDRO SUBAREA
Z-09.00	SWEETWATER HYDRO UNIT
Z-09.A0	LOWER SWEETWATER HYDRO SUBUNIT
Z-09.A1	TELEGRAPH HYDRO SUBAREA
Z-09.A2	SWEETWATER HYDRO SUBAREA
Z-09.B0	MIDDLE SWEETWATER HYDRO SUBUNIT
Z-09.B1	JAMACHA HYDRO SUBAREA
Z-09.B2	HILLSDALE HYDRO SUBAREA
Z-09.B3	DEHESA HYDRO SUBAREA
Z-09.B4	GALLOWAY HYDRO SUBAREA
Z-09.B5	SEQUAN HYDRO SUBAREA
Z-09.B6	ALPINE HEIGHTS HYDRO SUBAREA
Z-09.C0	UPPER SWEETWATER HYDRO SUBUNIT
Z-09.C1	LOVELAND HYDRO SUBAREA
Z-09.C2	JAPATUL HYDRO SUBAREA
Z-09.C3	VIEJAS HYDRO SUBAREA
Z-09.C4	DESCANSO HYDRO SUBAREA
Z-09.C5	GARNET HYDRO SUBAREA
Z-10.00	OTAY HYDRO UNIT
Z-10.A0	CORONADO HYDRO SUBUNIT
Z-10.B0	OTAY HYDRO SUBUNIT
Z-10.C0	DULZURA HYDRO SUBUNIT
Z-10.C1	SAVAGE HYDRO SUBAREA
Z-10.C2	PROCTOR HYDRO SUBAREA
Z-10.C3	JAMUL HYDRO SUBAREA
Z-10.C4	LEE HYDRO SUBAREA
Z-10.C5	LYON HYDRO SUBAREA
Z-10.C6	DULZURA HYDRO SUBAREA
Z-10.C7	ENGINEER SPRINGS HYDRO SUBAREA
Z-11.00	TIA JUANA HYDRO UNIT
Z-11.A0	TIA JUANA HYDRO SUBUNIT
Z-11.A1	TIA JUANA HYDRO SUBAREA
Z-11.A2	SAN YSIDRO HYDRO SUBAREA
Z-11.B0	POTRERO HYDRO SUBUNIT
Z-11.B1	MARRON HYDRO SUBAREA
Z-11.B2	BEE CANYON HYDRO SUBAREA
Z-11.B3	BARRETT HYDRO SUBAREA
Z-11.B4	ROUND POTRERO HYDRO SUBAREA
Z-11.B5	POTRERO HYDRO SUBAREA
Z-11.C0	BARRETT LAKE HYDRO SUBUNIT
Z-11.D0	MONUMENT HYDRO SUBUNIT
Z-11.D1	PINE HYDRO SUBAREA
Z-11.D2	MONUMENT HYDRO SUBAREA
Z-11.E0	MORENA HYDRO SUBUNIT
Z-11.F0	COTTONWOOD HYDRO SUBUNIT
Z-11.G0	CAMERON HYDRO SUBUNIT
Z-11.H0	CAMPO HYDRO SUBUNIT
Z-11.H1	TECATE HYDRO SUBAREA
Z-11.H2	CAMPO HYDRO SUBAREA
Z-11.H3	CLOVER FLAT HYDRO SUBAREA
Z-11.H4	HILL HYDRO SUBAREA
Z-11.H5	HIRASS HYDRO SUBAREA